TECHNOLOGY DEPT.

ISSUED EVERY MONDAY AT 450 W. FORT ST., DETROIT 26, MICHIGAN. ESTABLISHED 1926.

AIR CONDITIONING & REFRIGERATION News

THE NEWSPAPER OF THE INDUSTRY

Vol. 63, No. 2, Serial No. 1156 **May 14, 1951** Subscription Price $5 Per Year

Reentered as second-class matter October 3, 1936 at the post office at Detroit, Michigan, under the Act of March 3, 1879.

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MAY 14 1951
DETROIT

INSIDE DOPE

by GEORGE F. TAUBENECK

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Add Sales Stories
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Stories of the Week

In a debate over agricultural subsidies, Rep. Hall of New York declaimed (according to habitues of the National Press Club bar):

"We must take the bull by the horns or the American people won't have any milk."

Three veteran bureaucrats succeeded in getting transfers to Mike DiSalle's Office of Price Stabilization, and all moved into their new quarters on the same day.

That night they met for cocktails, and to brag about their new positions. (Social caste in Washington is a rigid matter of name-on-the-door titles, and the size and location of offices.)

"I moved into the Office of the Director," preened Samuel.

"The lettering on the door of my office," revealed Gabriel, with ill-concealed satisfaction, "reads: SENIOR ADMINISTRATOR."

Lemuel toyed with the olive in his martini, and said nothing.

"And how did you fare, Lem?" prodded Gabe.

"At last," vouchsafed Lemuel, "I am a GENTLEMAN."

Lost in a London fog, a tourist from Chicago bumped into an Englishman.

"Pardon me, sir," gasped the American. "Would you mind telling me where am I at?"

"Your grammar is atrocious," grumped the Londoner. "You should inquire: 'Where is my 'at?' "

Couple of weeks ago we called on a bookseller who was still chuckling about a lady client. The latter phoned in an order for the Kinsey Report.

"Yes, ma'am," polited the bookstore proprietor. "Shall I send it C.O.D.?"

"How much is it?"

"Six dollars and 75 cents, ma'am."

"My goodness! That much? Don't bother, then. I'll wait and see the movie version."

Gag of the Week

When told that Truman had sent General Vaughan (of "deep freeze" fame), to meet General MacArthur at the Washington airport, Iowa's Senator Hickenlooper cracked:

"I can think of no individual who could more truly represent H. S. T."

Wrong Number

Fellow with whom "Dope" is acquainted intimately gets tired of being told he looks like Bob Hope. The other midnight he mounted a stool in a "coffee car" and ordered ham and eggs.

"Say, don't I know you?" prodded a buxom babe on an adjoining stool.

"Probably," agreed the resigned fellow. "Bob Hope."

"Really? I do declare. I was so sure you were a boy I went to school with down at Champaign, Ill. Thought your name was George."

Add Salesman Stories

"You don't want any more insurance do you, Sir?" quavered an apparently scared little fellow.

"I should say not!" bellowed the cheery Vice President in Charge of Sales. "How did you get in here, you spineless shrimp?"

"Please sir, it was an accident. You . . ."

"Come in here. Sit down. You're a poor excuse for a salesman. Let

(Concluded on Page 8, Column 1)

Manufacturer and Dealer Groups Protest M-47, Propose Changes

WASHINGTON, D. C. — The Mechanical Household Refrigerator and Home Freezer Manufacturers Industry Advisory Committee met last week with the National Production Authority and recommended that NPA's order limiting use of steel in consumer goods be modified to permit manufacturers to shift production within a wide range of household appliances.

NPA Order M-47 (Consumers Goods) now holds usage of iron and steel in certain specified consumer items to 80% of usage in the base period, January-June, 1950.

Removal of separate classification of items in Section IV of List A of

(Concluded on Page 29, Column 2)

CHICAGO—Official protest of the National Appliance and Radio Dealers Association against the way M-47 predetermines how each manufacturer must use the steel allocated to him under the National Production Authority's 80% quota was registered by Mort Farr, NARDA president, in a letter to Manly Fleischmann, NPA administrator.

In his letter, Farr said that NARDA, a national organization representing appliance, radio, and television retailers, has devoted considerable study to the long range effect certain portions of NPA Order M-47 will have on the industry.

Though NARDA recognizes that the regulation of the amount of materials going into civilian industry is essential, he wrote, "There are certain business areas where M-47 goes beyond the required limits and creates artificial obstacles to the normal free play of our economy, obstacles which are not necessitated by military considerations.

"Traditionally, consumer demand has been the agency determining

(Concluded on Back Page, Column 1)

Lynch Corp. Elects Zimmerman Pres.

TOLEDO—F. K. Zimmerman, formerly secretary-treasurer of Lynch Corp., has been elected president following the resignation of M. H. Pendergast, who also was a director.

Zimmerman was formerly connected with Par refrigeration and air compressor manufacturing at Defiance, Ohio, before taking over the position as secretary-treasurer.

Pendergast joined Lynch in 1938 when the company purchased Modern Equipment Corp. of Defiance, which he was then operating in the capacity of vice president and general manager. He was elected to the Lynch board of directors in 1941, served as executive vice president and general manager until 1949 when he moved up to the presidency.

With the acquisition of Modern in 1938, Lynch has expanded from a

(Concluded on Page 4, Column 5)

Hotpoint Elects Taylor Vice Pres. of Marketing

CHICAGO—Election of Edward R. Taylor, general sales manager of Hotpoint, Inc., as vice president of the company, has been announced by James J. Nance, president.

Taylor, who will direct all Hotpoint marketing policies, joined the company in 1947 as merchandise manager and later served as market development manager and sales manager. He is credited with developing Hotpoint's extensive postwar advertising campaign.

Meetings In 20 Cities Will Explain CMP

WASHINGTON, D. C. — First in the series of meetings scheduled by NPA to acquaint businessmen with the Controlled Materials Plan will be held in Chicago and Detroit on May 15.

Meetings are scheduled for 18 other key cities in the next 10 days, being sponsored by the U. S. Department of Commerce field offices. Four teams of four men each will make up the groups who will explain the application and operation of CMP and answer questions.

Schedule for the other meetings follow: Minneapolis, Philadelphia, and Houston, May 16; Seattle, Boston, and Dallas, May 17; Portland, Ore., Denver, New York City, and New Orleans, May 18; San Francisco, Kansas City, Cleveland, and Atlanta, May 21; Los Angeles, St. Louis, and Pittsburgh, May 22; Richmond, May 23.

Philco Refrigeration Div. Names 2 V.P.'s

PHILADELPHIA — The appointment of James M. Skinner, Jr. as vice president-sales and Ray A. Rich as vice president-products of the refrigeration division of Philco Corp. was announced recently by Thomas A. Kennally, president of this division.

Skinner, who joined Philco in 1934 after attending the University of Pennsylvania, has been general sales manager of the refrigeration division.

Previously he served, successively, as special assistant to the vice presi-

(Concluded on Page 4, Column 5)

Detroit Proposal To Limit Some Licenses

DETROIT — Proposals to limit licenses issued to certain contractors such as dairies so that their employes could not legally service equipment not owned by the dairies are under consideration in Detroit.

These suggested changes would not involve revising the city of Detroit's proposed new refrigeration code, nor would it be required to change the existing ordinance, city officials say.

"The present Board of Examiners has the authority to draw up rules and regulations to make effective the licensing provisions of the present ordinance," explained Frank Drogosch, associate mechanical engineer of Detroit's Bureau of Safety Engineering.

This fact was brought out when Charles Heemstra, representing the Refrigeration Contractors Association of Detroit, appeared before the Board of Examiners last week to present the proposal orally.

This suggestion was developed by the contractors group here after their proposal to require licensing of journeymen was unanimously voted out of the city's proposed new refrigeration code.

"The contractors approached us with the idea of a Class D license for companies who don't go out and contract to install or service, but merely install or service their own equipment," Drogosch told the examining board.

(Concluded on Page 11, Column 3)

RACCA To Consider Asking Fair Trade Code for Industry

NEW YORK CITY — Petitioning the Federal Trade Commission for a Fair Trade Code for the commercial refrigeration industry to eliminate unfair competition from such business groups as ice cream manufacturers and beverage producers will be considered at a meeting May 19 and 20 at the Park Sheraton hotel of the board of directors of Refrigeration and Air Conditioning Contractors Association.

Other subjects of industry-wide interest to be discussed by the RACCA directors will include the matter of licensing of refrigeration journeymen, and trends in manufacturers guarantees and warranties.

George T. Howe of Chicago will submit to the board plans for the annual convention of RACCA which is scheduled to be held in November in Chicago at the time of the All-Industry Refrigeration & Air Conditioning Exposition.

At the last meeting of the directors it was decided that future board meetings would be held in the locality of each of the board members. Thus, the May 19-20 meeting is being held in New York City, the locality in which T. A. Reina, president of RACCA, operates.

Consider Civil Service For N.Y. Repairmen

NEW YORK CITY—If a measure recently introduced to the City Council of New York wins approval and becomes a law, all persons who service mechanical refrigerators of any type will have to pass Civil Service examinations and be certified by the commissioner of housing and buildings.

All service personnel, regardless of who employs them, would be covered under the proposed law.

The bill, it is said, reflects the council's intention to tighten the city's regulations governing the repair and reconditioning of old equipment. It was introduced by Councilman Kranis of Brooklyn and referred by the council to its general welfare committee.

In a recent letter to Mayor Impellitteri, the commissioner of housing and buildings, Bernard J. Gillroy, declared that "through wartime ne-

(Concluded on Back Page, Column 2)

Super Market Institute Opens May 14

CHICAGO—With the largest advance registration in history, the four-day 14th annual convention of the Super Market Institute was scheduled to open today, May 14, at the Stevens hotel here.

Price controls, manpower, supplies of vital commodities such as meat and cellophane, will occupy key spots on the program, but there'll also be sessions on advertising, merchandising and promotion, personnel training, check-out demonstrations, etc.

In addition to the meetings to be held during the mornings, members and guests will have an opportunity in the afternoon to view the exhibits which usually fill the Stevens exhibit hall as well as the mezzanine floor.

The Monday, May 14, session will include "A Super Market Manager Speaks" by John Noffsinger of the Liberal Market, Dayton, Ohio;

(Concluded on Page 4, Column 4)

CPR 30 Covers Equipment of 25 Tons and Over

Sets Base Period Price As Mfr.'s Published List Price for Period

WASHINGTON, D. C.—A new ceiling price regulation that applies to machinery manufacturers and includes producers of air conditioning and refrigeration equipment of 25 tons and greater capacity and producers of a number of refrigeration equipment components was issued by the Office of Price Stabilization recently.

Called CPR 30, the order is patterned after CPR 22 covering manufacturers prices, except that it specifies that the base period price is to be the manufacturer's published list price for that period.

In the wake of the issuance of CPR 22, a number of additional housewares manufacturers and the national sales agent for one refrigerator manufacturer have announced price protection policies to cover distributors in case the new ceiling prices to take effect on May 28 are lower than present prices.

Other manufacturers, however, are withholding any statements of policy until their accountants have figured out just what effect the regulation will have on their present prices.

(Concluded on Back Page, Column 3)

Mfrs. Get Advance Information on CMP

WASHINGTON, D. C.—Advancing preparations for its Controlled Materials Plan, the National Production Authority early this month mailed to more than 50,000 manufacturers who are expected to be affected by CMP:

1. Copies of application form CMP-4B on which they are to apply for their needs in the controlled materials—steel, copper, and aluminum—for the third quarter of the year.
2. Instructions for filling out the forms.
3. Copies of the official CMP Class B products list of manufactured items using controlled materials. The products are listed under category headings and indicate the NPA industry division to which manufacturers should apply for authorized production schedules, allotments of controlled materials, and DO ratings.
4. Copies of CMP Regulations 1 and 3, which explain the basic pattern of operations under CMP.

With these materials in hand, NPA said, manufacturers of Class B products can start preparing for operations under CMP. If their products as listed are not marked with an

(Concluded on Page 17, Column 1)

DO-97 Ratings Can't Be Used To Build Stock

WASHINGTON, D. C. — DO-97 ratings—used in purchasing certain materials needed for maintenance, repair, and operating supply items (MRO)—must not be used to build up inventory stocks, the National Production Authority stresses.

NPA said that some wholesalers, anticipating DO-97 rated orders from their customers, are building up stocks in advance to meet this expected demand by extending DO-97 rating prematurely to their own suppliers.

This is a violation of Regulation 4, NPA pointed out. The wholesaler must not use the DO-97 rating to get replacement items until he has received a DO-97 order from his customer. When he gets a rated order, it then becomes permissible for him to use DO-97 to replace the item sold.

The DO-97 rating was established as a means of protecting civilian production and economy as far as possible by keeping civilian facilities in operating order, NPA pointed out. The rating may be used by any business firm, government agency, or private or public institution as provided in Regulation 4.

Quota System, Retroactive Commission Pays Off For Salesman, Dealer In Cash and Satisfaction

LAKEWOOD, Colo. — Use of a compensation plan designed to keep salesman turnover at a minimum and exploitation of a source of hot prospects mark operations at Lakewood Appliance Co. here.

Big virtue of the compensation system, according to Harry Aldrich, head of the firm, is that it enables the salesman to make enough extra money in good-business periods to offset low-volume periods.

Under the plan, each salesman receives 8% on his gross appliance sales for each quarter up to a certain amount. If he surpasses a predetermined quota, which may be anywhere from $5,000 to $15,000, depending upon the season, he receives a retroactive additional commission of 1% on the total amount. During the ensuing quarter, he again receives 8% on his appliance sales, and if he surpasses the quota a second time, he then receives 2% on the total gross sales.

The retroactive amounts are paid in at the end of the year, providing extra funds for Christmas expenses, etc., and offer a fixed goal for each salesman to reach. The fact that benefits of the plan are cumulative help keep salesmen on the payroll, Aldrich has discovered.

Aldrich found the source of good prospects right in the same building which houses his firm. It is the Lakewood sewer district headquarters, which issues all permits for hook-ups to the county sewage system, as well as water permits.

Through the cooperation of officials of the sewer department, the dealer has a continuous supply of names and addresses of purchasers of existing homes and of families building new homes in the area.

The leads provided from this source, which may range from three to 10 a day, are followed up by three outside salesmen, including one route supervisor, within 24 hours after receipt.

Albany To Survey Water Conservation Compliance

ALBANY, N. Y.—With Albany's air conditioning equipment law now in effect, Mayor Corning announced a survey would be made immediately of all such equipment in the city to determine the extent of compliance.

The law, enacted last year, is designed to regulate use of water for air conditioning. It set May 1 as the time by which all air conditioning equipment must be equipped with devices to recirculate the water so there would be a minimum of waste.

Mayor Corning said that "if the installations have not been made, users of the equipment will be required to shut it down."

"We do hope to be able to be lenient for a short time only with those who have started installations but have not completed them," the mayor said.

He pointed out the law makes violation a misdemeanor, punishable by a fine of $50 a day for every day of continuing violation.

Conspiracy Charged In Method of Distributing Electrical Equipment

MINNEAPOLIS—Violations of the Sherman Anti-Trust Act by conspiring to restrict methods of distributing electrical equipment in the Twin Cities area are charged in a civil suit filed by the U. S. Department of Justice in Federal Court here against three electrical contractors' associations, three contracting firms, four electrical jobbing firms, a manufacturer's representative, and two labor unions.

This is a companion suit to the criminal indictment against substantially the same defendants returned by the Federal Grand Jury in St. Paul earlier this year.

The Justice Department claims that the defendants arranged that equipment would be sold only by manufacturers to jobbers, by jobbers only to electrical contractors, and by electrical contractors to consumers.

It is further charged that the alleged conspiracy was accomplished by boycotts, threats of boycotts, refusal to install electrical equipment, and otherwise inducing persons to adhere to the restricted distribution.

Besides asking injunctions to prevent continuing the alleged conspiracy, the Justice Department's complaint seeks the dissolution of the three contractors' associations.

Gene's Opens Second Store

SYRACUSE, N. Y.—Gene's Appliance Center, 1420 Grant Blvd., has opened a second appliance store at 2205 Brewerton Rd.

Beauty, Performance Combined

Model Mary Rippel of Columbus, Ohio, pictured here with an Oasis Water Cooler, was selected recently by plumbing and appliance servicemen as the girl they would most prefer to spend a quiet evening with.

The Oasis Water Cooler gets into the act because it, too, is a beautiful model. Its improved static condensing unit has no fan motor or fan. It is convection air cooled to give ultra-quiet operation. Even with the doctor's stethoscope, Mrs. Rippel said she could detect no fan jangle or vibration.

Safeway Opens Another Air Cooled Supermarket

OMAHA, Neb. — Safeway Stores has opened its latest Nebraska supermarket at 7419 N. 30th St., with year-round air conditioning by Carrier.

The market also features self-service, pre-packaged meats, refrigerated reach-in cases for vegetables, ice water drinking fountains, monorail service from the elevator to the meat pre-packaging room and walk-in coolers in the basement, "electric-eye" doors, conveyor system, intercommunication system, and approximately a mile of fluorescent light tubing.

The concrete, brick, and glazed tile structure covers 10,880 sq. ft., and a full basement brings the floor space to 21,760 sq. ft.

Air Force Clinics Will Tell Small Firms of Requirements

WASHINGTON, D. C.—Small businessmen will have an opportunity to learn the needs of Air Force prime constructors at subcontractor clinics to be held in four major cities—Boston, Detroit, Los Angeles, and Fort Worth.

The clinic will be May 15-19 at the Boston Armory. Date and location of the clinics in the other three cities have not yet been announced. The four clinics will follow one held April 30 to May 9 at the Navy Pier in Chicago.

Mich. Bills Would Halt Illegal Sales of Used Products

LANSING, Mich.—Two bills aimed at "protecting" the public from retailers who sell as "new" merchandise articles which have been repossessed or used as demonstrators have been introduced in the Michigan state legislature.

One of the measures introduced would have any appliance sold for more than $50 retail carry a bill of sale and an affidavit from the dealer that it is "new and unused." It would also declare that sales made in violation of the act be void and the purchaser be entitled to damages equal to 40% of the retail price.

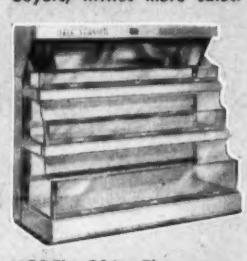
The other bill would make it a misdemeanor for any person to conceal or misrepresent the identity of any motor, household appliance, or mechanical device by defacing the manufacturer's serial or motor number.

Special Promotion Pulls Sales

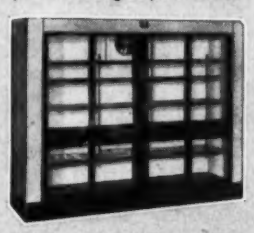
HARRISBURG, Pa. — A unique "One Hour Only" sale was staged by Jay's Electronics, here, to stimulate washer business.

For one hour only on a Wednesday night and a Thursday afternoon, the store offered a $25 allowance on any old washer toward purchase of a new one, as long as its supply of washers lasted.

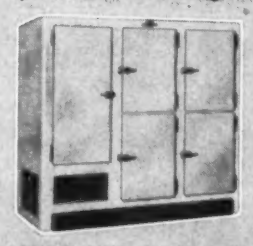
MODEL 1407. Self-service frozen food display case. Attracts and handles more buyers, invites more sales.



MODEL 306. The sensational open case with THREE refrigerated shelves. For profit-making impulse sales.



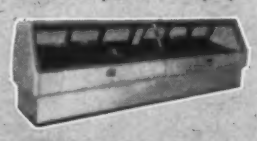
MODEL 3508. Wall Type Display Case. For self-service display of dairy products or beverages.



MODEL 3865. A 65-cu. ft. reach-in refrigerator. One of the four popular Koch reach-in cabinets.

THE QUALITY REFRIGERATOR LINE

MODEL 6710. 10 ft. long open front case with extra wide display shelf. Ideal for produce display.



SERIES 3100. Endless top display cases, 7 and 10 ft. long. Set up in any length for profit displays.

DOUBLE

DOUBLE dairy sales with the DOUBLE featured KOCH 206! Extra capacity for staples on the low level keeps traffic in front of the spotlighted eye-level shelf *where impulse buying gets the top billing.* Double the impact, too, with complete visibility, brightly lighted shelves and signs and full length polished plate glass mirror. Welded steel construction . . . fadeproof porcelain and polished plate glass front . . . trimmed with stainless steel.

YOUR

You're way ahead with the new 206! 12 feet of shelving in a 6-ft. case, correctly sized for island displays. Removable ends for easy joining—*plus* dependable KOCH refrigeration.

MONEY

Put your money in a KOCH case and you'll DOUBLE your dividends with faster, easier selling. KOCH quality insures low-cost operation and many years of trouble-free operation.

KOCH REFRIGERATORS

SINCE 1883 NORTH KANSAS CITY 16, MO.

SEND THIS COUPON *today* FOR FULL DETAILS

KOCH REFRIGERATORS
North Kansas City 16, Missouri

Please send me at once complete details on your dealer proposition. I understand several attractive territories are available. RN 3

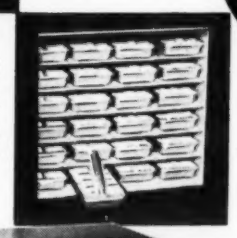
Name.....

Address.....

City.....Zone.....State.....

Outside Entrance
An exclusive feature that eliminates opening of cube freezing section every time cubes are needed.

YOUR OWN DEPENDABLE BTC ICEMAN



Quick Release Trays
24 standard size, quick release trays, 384 large cubes at one freezing.

rapid freeze ice-cube maker

. . . that brings you the most advanced improvements in refrigeration history.

For illustrated literature call, write or wire:

REFRIGERATED EQUIPMENT SALES CORP.
19 West 44th Street, New York 18, N. Y. Dept. A5

You can tell the difference . . . blindfolded!

THAT IS NO EXAGGERATION. Nothing in a refrigerator more clearly shows quality . . . or the lack of it . . . than the construction of the freezer chest. And particularly, the across-the-top type . . . the type that women have come to regard as being practically a small home freezer!

Kelvinator introduced the *first* across-the-top freezer chest . . . in 1936 . . . and Kelvinator has pioneered in engineering larger capacity, greater efficiency into this type chest. Kelvinator is proud of these achievements . . . takes pride in building into its freezer chests quality features that are found in *no other brand.*

The result: even a *blindfolded* customer could tell the difference in quality between Kelvinator and other refrigerators!

FIRST, she could tell that there are freezing coils in all four walls . . . and that the *back* is refrigerated, too . . . *5 refrigerated surfaces* in all . . . to provide surer, lower temperatures . . . safer cold.

SECOND, she could tell that Kelvinator puts a back on its across-the-top chest to keep in the cold, keep out warmth and moisture.

THIRD, she could tell that Kelvinator uses a gasket around the front edge of the chest against which the door closes . . . as a further seal.

FOURTH, she could tell that the aluminum Kelvinator uses in this chest has a special reinforcing design . . . it's not only rustproof . . . but extra strong, durable and resistant to scratches.

FIFTH, she could tell that Kelvinator encloses the chest with a double-panelled door and its solid "feel" tells her that it's packed with insulation . . . so the front won't sweat and drip water.

SIXTH, she could even tell from the thick, solid "feel" of the baffle that it's *built right* . . . it's insulated, too, to prevent sweating and dripping onto the foods below.

The important point to retailers and to their customers is this: *all* of these quality features are built into every Kelvinator *across-the-top freezer chest model . . . regardless of price!*

Yes, there's a *big difference* in Kelvinator quality which you can even tell blindfolded—and in that difference Kelvinator retailers have yet another big reason why the Kelvinator franchise is the most valuable in the appliance industry!

GET MORE Get Kelvinator

TUNE IN! CBS-TV NETWORK! Kelvinator *"Star of the Family"* show, starring Morton Downey. See your local paper for time and station.

THE MOST VALUABLE FRANCHISE IN THE APPLIANCE INDUSTRY

ELECTRIC REFRIGERATORS . . . RANGES . . . FREEZERS . . . WATER HEATERS . . . AIR DRIERS

KELVINATOR • DIVISION OF NASH-KELVINATOR CORPORATION • DETROIT 32, MICHIGAN

Neb. Legislature Introduces 2 Bills To Prevent Appliance Black Market

LINCOLN, Neb.—Rules were lifted in the Nebraska legislature to permit introduction of two eleventh-hour bills, LB-546 and LB-547, to provide an alleged remedy for "black" and "gray" markets in the home appliance, farm implement, and industrial machinery business in Nebraska.

The measures were introduced at the request of Senator Herbert Duis.

LB-546 would prohibit the sale of appliances and other equipment if the manufacturer's serial number has been altered or removed. LB-547 makes such alteration or removal a felony.

Proponents of the bills, particularly franchised dealers, declared that dealers are entitled to the same protection granted automobile retailers and users.

Such legislation would assist dealers in giving better service to customers, it was maintained, because where the serial number is removed, it is difficult to establish the year the equipment was sold to determine the parts that a service customer wants.

Leading the opposition was Francis Case, representing an independent dealer at Plattsmouth, who asserted that "the men who are here seeking air are those who take off the serial numbers." He added that franchised dealers, when they are in a "pinch" and need money, sell equipment to independent dealers but first take off the serial numbers to avoid losing their franchises.

He called the bills the "brain child of the manufacturers," and termed the farm implement business as most affected by the serial number removal practice.

M. R. Reller, Lincoln attorney, said the purpose of the bills is to raise the retail price of appliances and machinery to eliminate competition.

Clarence A. Lewis, Custer county farmer, declared the legislation was "a plain case of dealers trying to monopolize the price of machinery. . . ."

Refrigeration Servicemen Should Set Up Own Civil Defense Plan, Mich. RSES Told

By George M. Hanning

KALAMAZOO, Mich.—The refrigeration service industry ought to set up its own program of civil defense for use in the event of any type of emergency, George Schuld, safety director of the International Refrigeration Service Engineers Society, told members of the Michican association of the society convening here recently.

Schuld pointed out that there was a definite need to care for refrigeration equipment and food preservation whenever disaster struck, whether it be atom bomb attack, flood, fire, or panic.

He emphasized that there were no more capable people of doing that job than the servicemen. Therefore, he urged, they should form their own local civil defense committees, prepare a plan of action, and take this plan to their local civil defense officials.

This he considered to be much better than for the men to volunteer their services individually and be assigned to some task far removed from their regular job.

At the same time, the servicemen heard Jay Kinzie, field representative for Detroit Lubricator Co., describe the slogan his company developed, "Refrigeration—As Vital to America as the Food It Protects."

Kinzie pointed out that Detroit Lubricator, at the request of industry groups, has made the slogan available as an industry slogan, divorcing the company from it completely.

He pointed out that small decals and stickers bearing the slogan are already being made available to the trade through parts wholesalers.

Kinzie urged the men to use the slogan on their invoices to customers and other papers that reach the public, so that the industry will get the recognition it needs.

"The whole point of the program," he stated, "is not to tell each other about it but to tell your customers, the public, and particularly government officials."

Representatives of several refrigeration equipment manufacturers gave educational talks before the two-day convention. Their topics will be covered elsewhere in this and future issues.

At the business meeting of the convention, the state association elected the following officers for the coming year:

Larry Puerner of Sturgis, president; William Clark of Comstock Park, first vice president; Arne Perttola of Detroit, second vice president; Charles Wright of Lansing, secretary; Donald Pierce of Lansing, treasurer; Clare Babcock of Flint, sergeant-at-arms; and Lloyd West of Kalamazoo, educational director.

Delegates set April 18-20, 1952, as the tentative date for the association's third annual convention. Selection of the final date and place is left up to the board of directors.

The Michigan association is made up of members of five state chapters: Greater Detroit, Southwestern Michigan (Kalamazoo), Wolverine (Lansing), Motor City (Flint), and Furniture City (Grand Rapids).

Philco Appts.--

(Concluded from Page 1, Column 3)

dent of merchandising and then as manager of the sales statistical department.

When the accessory division was formed in 1940, he was named sales manager and in 1945 was made general manager of this division, after helping to direct the Philco Training School on radio, radar, and electronics during World War II.

In 1948, he was named vice president-service and parts division and served in this capacity until he became general sales manager of the refrigeration division in 1949. In his new position, Skinner will be responsible for sales of Philco refrigerators, freezers, and air conditioners.

Rich, a graduate of Iowa State college in electrical and mechanical engineering, with additional studies at Drake university and University of Arizona, joined Philco in January, 1949, as product manager, electric ranges.

Previously, he had 10 years' experience in the appliance industry with General Electric Co.

In his new capacity as vice president, products, Rich will be responsible for the design of Philco Refrigerators, freezers, air conditioners, and electric ranges.

New Lynch President--

(Concluded from Page 1, Column 2)

single plant operating in Anderson, Ind., manufacturing glass-forming machines, to a five-plant operation in Toledo and Defiance, Ohio, and Marion and Anderson, Ind., manufacturing an extensive line of packaging machinery, automotive air compressors, and refrigeration equipment in addition to the glass machinery line.

Super Market Meeting--

(Concluded from Page 1, Column 4)

"We're in the People Business" by Stanton W. Davis of Brockton Public Market, Brockton, Mass.; "It's Later Than You Think," by Elwin Kleihauer of Standard-Humpty Dumpty Super Markets, Oklahoma City, and a question and answer period on price controls conducted by the Office of Price Stabilization.

Beardsley Ruml, internationally known economist, will address the luncheon.

Tuesday's program will open with a breakfast courtesy of General Foods Corp. with Charles G. Mortimer, vice president in charge of marketing for the company, being the speaker.

At the regular business session Christine Holbrook, editor of *Better Living* magazine, will discuss "10 Ways To Win a Woman"; Thomas Patrick McMahon of McMahon & Morse, "Your Community Relations Are Showing"; a panel discussion on "Ideas That Have Brought More Customers and Sales," and Elmer Wheeler, "You Still Have To Sell the 'Sizzle.'"

Breakfast session Wednesday morning will be sponsored by *Collier's* and will feature a direct two-way conversation with the magazine's Washington correspondents.

Ray Haun of *This Week* magazine will discuss "What Makes a Super Market Tick," after which manufacturers and operators will participate in a panel with the theme of "Let's Play Ball Together."

Final session Thursday morning will open with a panel presentation on "Meat—the Answers" by operators and members of Swift & Co.'s technical staff. E. M. Harwell of the U. S. Department of Agriculture will talk on "How To Cut Costs"; Curt Kornblau, manager of the institute's research and information service, will report on "The Super Market Industry Speaks," which will be followed by a presentation through the cooperation of *Life* magazine.

Instantaneous
Draught Beer Cooler
refrigerated faucets!
Speed-Freeze
draft and bottle beverage coolers
write
IDEAL COOLER CORPORATION
2953 EASTON AVE., ST. LOUIS 6, MO.

Standard and Custom-Built
REFRIGERATOR HARDWARE
by
National Lock Company
• SURFACE
• "THRU-THE-DOOR"
• EDGE-MOUNTED TYPES
also standard and custom-built
STAMPINGS • PRESSURE ZINC DIE CASTINGS
PLASTICS, THERMOPLASTICS and THERMO SETTING
SHELF SUPPORTS • SCREWS AND BOLTS
BUTTS AND HINGES • STOVE HARDWARE
HANDLES • PULLS
WRITE US FOR FULL INFORMATION AND DESIGN DETAILS
NATIONAL LOCK COMPANY
REFRIGERATOR HARDWARE DIVISION
ROCKFORD, ILLINOIS

M&E EST. 1866
COMFORT COOLER
No ducts required
360° circulation
Built-in pump
Ripple Green or White
Model 100 C.C.
20,750 BTU. hr. at 40° Ref. Temp.
Write For Catalog
MERCHANT & EVANS CO.
PHILADELPHIA 46, PA.

BRAND NEW
WILL-COOL OIL COOLER
For Machine Tools
Sold through refrigeration trade
Connect it to your own condensing unit.
MAKE MULTIPLE SALES IN YOUR OWN TERRITORY
Every Machine Shop and Factory Doing High Production Work a Prospect
Eliminates many production problems for your prospects. Specifically designed to control temperature of production machinery. Sizes to accommodate most machine tools.
Inquiries are invited
B. S. WILLIAMS CO., INC.
6 North St. Mt. Vernon 1, N. Y.

COMMERCIAL REFRIGERATION
Factory Sales Representative
Representatives wanted in several territories to cover commercial refrigeration dealers, distributors, ice cream manufacturers, frozen food distributors, restaurant equipment dealers, contract buyers, etc. Complete line of commercial equipment available. Includes modern frozen food and ice cream manufacturers, reach-in refrigerators, two-temperature refrigerators, beverage coolers. Strong advertising support both to trade and user. Protected territory. This is a permanent and lucrative connection for a high-grade man with a following. Manufacturer is one of largest and best-rated in the industry. Write in complete confidence — and please give all necessary details. Address Box 3727, Air Conditioning & Refrigeration News.

NORGE WINS

Home Safety Award!

Gas Range "Self-Starter" Voted Tops for Promoting Greater Home Safety

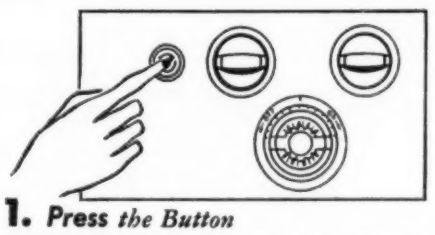
Wow! What a selling story! Amazing "Self-Starter" banishes matches and pilot lights *forever!* Housewife merely presses a button and the oven or any top burner lights instantly . . . with electricity! Tiny electric element is on *only* when it's needed. Uses no more current than a cigarette lighter in an automobile.

So, if you want to pep up your sales, just demonstrate this remarkable Electric Self-Starter on the new Norge Gas Range. Tell your prospects how it won the 1951 Lewis & Conger Home Safety Award acclaiming it as the year's foremost contribution to greater home safety. It'll bring you sales results—*quick!* Try it and see.

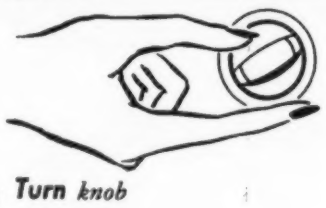
★ ★ ★

It's as simple as 1-2-3, OVEN and TOP BURNERS *LIGHT ELECTRICALLY!*

To light top burners...



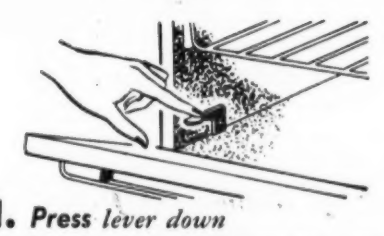
1. Press *the Button*



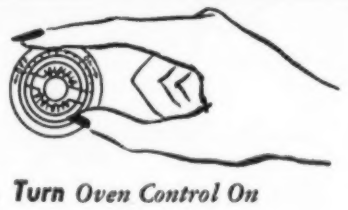
2. Turn *knob*

3. Presto! *Electricity Lights the Gas!*

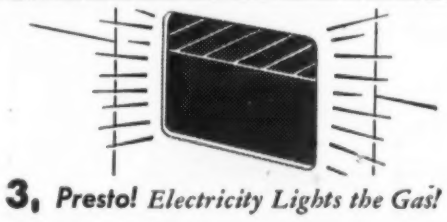
To light Oven...



1. Press *lever down*

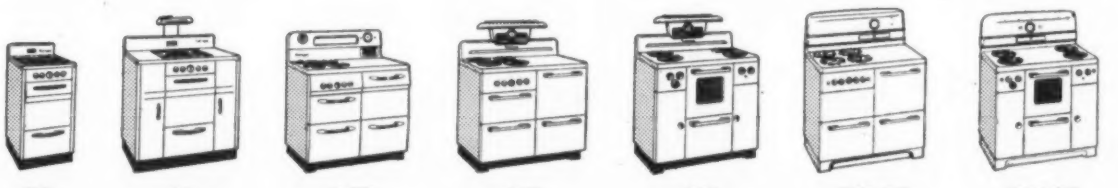


2. Turn *Oven Control On*



3. Presto! *Electricity Lights the Gas!*

NORGE



N-2 N-3 N-405 N-11 N-15 N-12 TLC N-16 TLC

7 GREAT NEW NORGE MODELS

THE LINE THAT PAYS OFF FOR THE DEALER!

Tennessee Valley Power's Traveling Show Stresses Electricity's Role on the Farm

CHATTANOOGA, Tenn.—A huge traveling electrical exposition featuring a home center, exhibits and entertainment specialties from appliance manufacturers, and a farm production center will hit the road again this year for another Tennessee Valley tour.

Sponsored by the Tennessee Valley Public Power Association, the Home and Farm Electrical Exposition will stop in 46 communities along a 2,500-mile route. It will visit parts of Alabama, Kentucky, Mississippi, Tennessee, and Virginia, with most of its showings in Tennessee.

This year's exposition will stress electricity's role in increasing farm production and saving manpower, and in bringing better living to homes in the area. Cooperating in the educational exhibits are the state extension services, state departments of education, and TVA.

The farm production center will include a complete model farm workshop, a poultry center on wheels, model Grade A dairy, feed grinding and processing trailer, and electric water systems. Agricultural engineers and vocational agriculture teachers will demonstrate this equipment.

Demonstrations on kitchen planning, electric cookery, food freezing, and home lighting will be conducted in the home center. High school students, TVA home economics trainees, and 4-H Club members will handle these demonstrations. In addition, there will be a dramatic adequate wiring presentation, featuring the "bodyless woman."

Among entertainment specialties from appliance manufacturers will be General Electric's "Junior," the waltzing range, remote control ironing, and the freezer lift; Crosley's talking kitchen; Philco's famous puppet review; Westinghouse's ventriloquist, Peter Rich, and Oscar Westin; General Motors' "Previews of Progress."

Live demonstrations on television, cooking, and other uses of electricity will be presented to dramatize appliance exhibits from manufacturers.

The exposition, housed in two large tents and several trailers, is the largest showing of its kind ever seen in the Tennessee Valley, according to the sponsor. First stop is at Florence, Ala., on May 15 and 16. The show ends at Tupelo, Miss. on Oct. 30.

Last year's exposition drew 370,000 people in 51 Tennessee Valley communities.

4 Dealers Fined for Fair Trade Violation

NEW YORK CITY—Fines totaling $1,000 were levied against four local dealers adjudged guilty of contempt of court for selling General Electric products at less than fair trade prices in violation of injunctions.

One of the retailers was threatened with a jail sentence if he fails to pay the fine.

The dealers are Charles Appliances, Inc., McDel Sales Corp., Milton Berger (trading as Berger's), and Charles J. Pribeck.

Charles Appliances drew the biggest fine—$750. Said Justice Felix Benvenga: "This is the third proceeding to punish. Further offense may well result in severer punishment."

The jail threat was made by Justice O'Leary Cohalan in the case of Berger, who was fined $100. "Failing such payment," the court warned, "commitment shall issue without further notice."

McDel Sales Corp. was fined $100. At the same time, Justice Benvenga granted a cross-motion by McDel to amend the judgment by inserting a provision allowing the close-out of G-E merchandise. The court approved the cross-motion with the provision that "reasonable terms and conditions" must be imposed "to ensure that it will not be used as a device to circumvent the injunction."

Pribeck was fined $50 by Justice Samuel Dickstein.

Wide Spread In Range Wiring Rates Found In NARDA Survey

CHICAGO—There's wide range of rates for installing electric ranges when the residence is not wired for 220 volts, the National Appliance and Radio Dealers Association discovered when it conducted a nation-wide wiring code sampling this week. Rates varied all the way from $35 to $300 though the average was around $70.

It wasn't so extreme when the residence is wired but has no range outlet.

Here rates run from $15 to $50, with the average around $30. Hourly rates for journeymen electricians were from $2 to $3 with most $2.25. Master electricians draw from $2.50 to $3.50, mostly $3.

Types of wiring used for electric ranges showed heavy favor to rigid conduit and service entrance cable, but EMT and non-metallic range cable were also cited.

Pennies from Heaven

Airplane Drops Merchandise Certificates To Apply On Appliances In Cheyenne Dealers' Promotion

CHEYENNE, Wyo.—Home appliance dealers here spurred lagging April sales and traffic by staging a two-day "Clean-Up Days" promotion in which leaflets, many with free merchandise certificates attached, were dropped by airplane over small towns located in the Cheyenne trade area.

Each certificate was good in trade for a few dollars on any appliance carrying the Clean-Up Days tag at a specified appliance store.

John Randolph, co-owner of the Randolph-Keefe Firestone appliance store, was chairman of the merchants' committee sponsoring the event.

He reported that thousands of shoppers from all parts of the trade area poured into town as a result of the promotion which was also well advertised in the newspapers.

Demonstrators and other clearance items were marked down for the event.

Sale merchandise was identified by labels printed especially for the promotion, while pennants and banners decorated the windows and interiors of participating dealers. Both Southside and downtown merchants joined in the merchandising event.

The Cheyenne Junior high school band provided entertainment for downtown shoppers the final morning, and one-way bus transportation to downtown Cheyenne was given free to shoppers both mornings, between 9:30 and 11:30 to aid in getting customers to the shopping area.

Out-of-town shoppers who received overtime parking tickets during the sale were instructed to turn them in at the chamber of commerce office without paying a fine.

NEVER BEFORE

10⅓ CU. FT. REFRIGERATORS ONLY 28½ INCHES WIDE...

Yes! And 8 cubic foot refrigerators only 24½" wide to provide real "family-size" capacity in the smallest kitchen. Never before has anyone offered a combination of capacity, compactness and convenience to equal that of the New Coolerator Royals. On every score these New Space-Thrifty Coolerators are tailored to fit the two all-important volume markets for 1951.

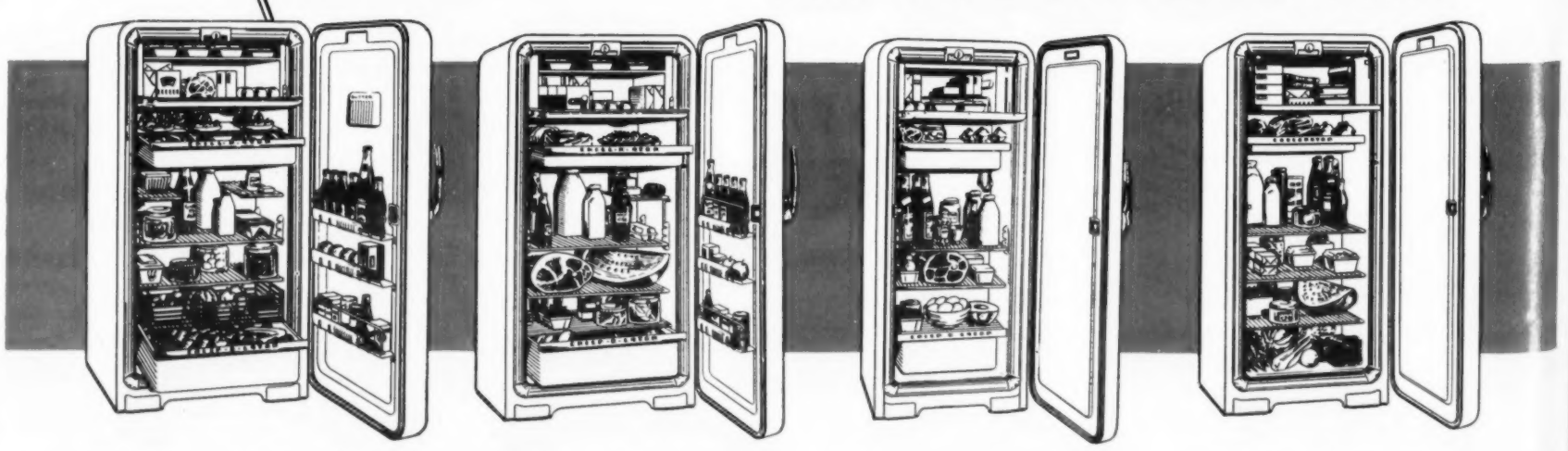
THE REPLACEMENT MARKET—These people want bigger refrigerators. They want Full-Width Freezer-Chests with temperatures low enough to store frozen food safely—to keep ice cream frozen firm—and freeze lots of ice cubes in a hurry. They want more convenient interiors with ample *moist cold* storage—and they want all these things in a refrigerator that will slip into their kitchens without disturbing existing cabinets.

THE NEW HOME MARKET—The National emergency, the growing scarcity of building materials, tighter mortgage requirements on larger and more expensive houses will combine to channel building into the smaller and lower priced field. Kitchens will be smaller, space will be at a greater premium than ever before. Again, the Space-Thrifty Coolerators which provide real "family-size" capacity with smallest outside dimensions are the answer.

See the Space Thrifty Royals at your Coolerator distributor's today. He'll be glad to show you Coolerator's national advertising program and work with you on local tie-in campaigns for extra sales and profits. Get all the details on Coolerator's New *Profit Protection Program*. See for yourself why you can grow faster with the line that's growing fastest.

Coolerator®

ROYAL SERIES OF SPACE-THRIFTY REFRIGERATORS WITH FULL-WIDTH FREEZER-CHESTS



THE QUEEN — RD-1104 — 10⅓ cu. ft. capacity—only 28½" wide—21 sq. ft. of shelf space. Full-width Freezer-Chest—Sliding Meat Drawer—Tilt shelf and removable Half Shelf—Adjustable Shelf—Sliding Handy Basket—Giant Crisp-O-Lator—Built-In Butter Saver—Space-Thrifty Door Racks.

THE DUCHESS—RC-1103—10¼ cu. ft. capacity—only 28½" wide. 20¾ sq. ft. shelf area. Full-Width Freezer-Chest—Chill-R-Ator Drawer—Removable Half Shelf—Adjustable Shelf—Giant *Moist-Cold* Crisp-O-Lator—Space-Thrifty Door Racks.

THE PRINCESS — RD-180 — 8.1 cu. ft. capacity—only 24½" wide. Full-Width Freezer-Chest—13½ sq. ft. of shelf area—Full-Width Chill-R-Ator Shelf—Sliding Meat Drawer—Adjustable Shelf—Full-Width *Moist-Cold* Crisp-O-Lator. Modern full-length door.

THE CORONET—RC-181—8.1 cu. ft. capacity—only 24½" wide. Full-Width Freezer-Chest—11.3 sq. ft. of shelf area—Full-Width Chill-R-Ator Shelf—roomy food compartment with shelves arranged for utmost storage convenience. Modern full-length door.

ELECTRIC REFRIGERATORS • RANGES • FREEZERS

AIRO stands for

Fast, dependable, world-wide service.
Refrigeration and Air Conditioning parts and supplies.
Write for current Catalog

AIRO SUPPLY CO.
2732 N. Ashland Ave., Chicago 14, Ill.

Redmond
MICROMOTORS
Prompt shipment!
74 different models in stock
FACTORY DISTRIBUTORS
CYCLO-FREEZ CORP.
2120 S. Lyndale, Dept. A, Mpls. 5, Minn.

Deposit for Kitchen Plans Keeps Prospects From Bargain Hunting at Dealer's Expense

NASHVILLE, Tenn. — One of the "headaches" of kitchen-remodeling promotion—the fact that laboriously-developed plans may be held by the prospect and used later by a competitor—has been eliminated at Wilson Electric Co. here through rubber-stamping plans and requiring a deposit if they are taken out of the showroom.

William L. Wilson, head of the firm, has found that a detailed presentation of what the remodeled kitchen will look like, including engineering sketches and a full-color drawing for the prospect, is a "must" for successful sales.

However, it was discovered that a serious profit leak stemmed from allowing unsold prospects to take the plans out of the salesroom.

"In some cases this was deliberate," Wilson said. "A low-income homeowner, for example, pleased with the plans but unhappy at the price, would simply take the plans and shop among various contractors and handymen until he found someone willing to do the job at a cut rate. Thus, naturally, we lost out on the expense of the presentation."

To prevent such practices, the company for the past year has been rubber-stamping every set of its kitchen modernization plans with the firm's name, address, and a line which states "For Wilson installation use only." Should a homeowner want to take a set of plans out of the salesroom, he must pay a deposit of $20—which many do.

Having once taken the plans with him, the homeowner of course already has $20 invested in his kitchen modernization project.

The firm sold $100,000 worth of new and remodeled kitchen service during 1949 and $150,000 in 1950.

Dealer Publishes List Of Trade-In Allowances In Bid for Business

BUFFALO — A table of trade-in allowances, including an offer of $150 on late model refrigerators, was advertised by Bestway Stores to spur refrigeration business in the spring season.

The firm stressed that trade-in offers stated in the published table were minimums, that customers would get more if their old refrigerators warranted it.

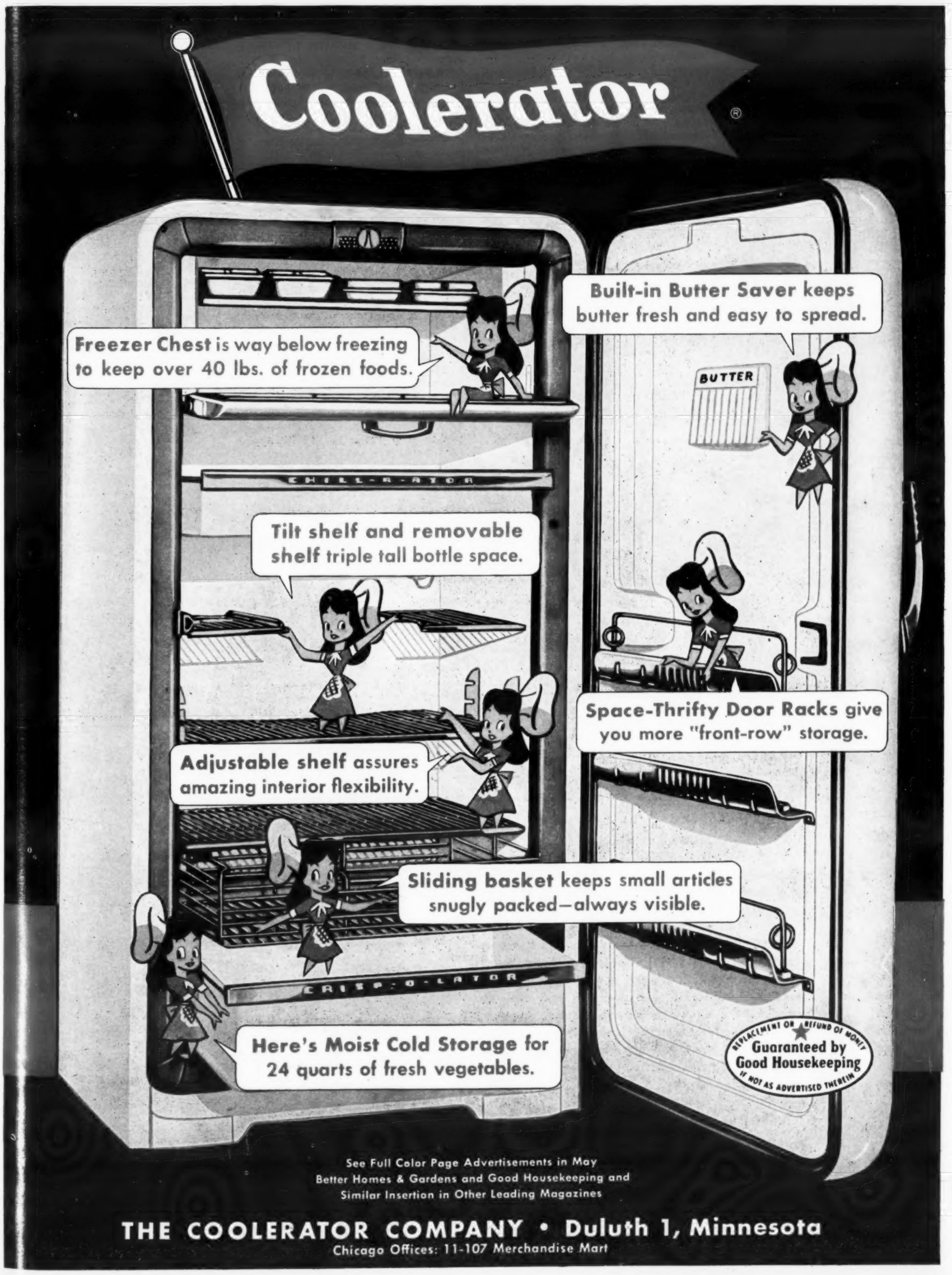
Here was the table of allowances carried in a large newspaper advertisement:

$150 for 1946-47-48-49 refrigerator.
$100 for 1942 refrigerator.
$85 for 1941 refrigerator.
$75 for 1940 refrigerator.
$60 for 1939 refrigerator.
$35 for any age refrigerator.

To get full prices in trade, the customer's old box had to be a nationally advertised, 6-ft. model, or larger.

What's In a Name?

FIRST PRIZE in Royal Furniture and Automatic Appliances contest to name this beagle puppy was a Philco refrigerator and the dog. Four-week promotion over the companies' midday television show resulted in heavy returns from the Cincinnati area.


Coolerator
Freezer Chest is way below freezing to keep over 40 lbs. of frozen foods.
Built-in Butter Saver keeps butter fresh and easy to spread.
BUTTER
CHILL-R-ATOR
Tilt shelf and removable shelf triple tall bottle space.
Space-Thrifty Door Racks give you more "front-row" storage.
Adjustable shelf assures amazing interior flexibility.
Sliding basket keeps small articles snugly packed—always visible.
CRISP-O-LATOR
Here's Moist Cold Storage for 24 quarts of fresh vegetables.
REPLACEMENT OR REFUND OF MONEY
Guaranteed by Good Housekeeping
IF NOT AS ADVERTISED THEREIN
See Full Color Page Advertisements in May Better Homes & Gardens and Good Housekeeping and Similar Insertion in Other Leading Magazines
THE COOLERATOR COMPANY • Duluth 1, Minnesota
Chicago Offices: 11-107 Merchandise Mart

Contest To Name Pup Draws 11,301 Entries For Appliance Dealers

CINCINNATI—Television, a beagle puppy, and several appliances and other items were the ingredients of a recent successful contest sponsored by Royal Furniture Co. and Automatic Appliances & Furniture Co. here.

The contest drew 11,301 entries from Ohio Valley counties. More than 78% of the entries were from the Greater Cincinnati market.

The four-week-long promotion was staged as a part of the "Midday Merry-Go-Round" television program regularly sponsored by the two companies for 39 weeks over WCPO-TV. The video show is telecast from 12:15 to 12:30 p.m. Monday through Friday and from 10:30 to 11:15 a.m. on Sundays.

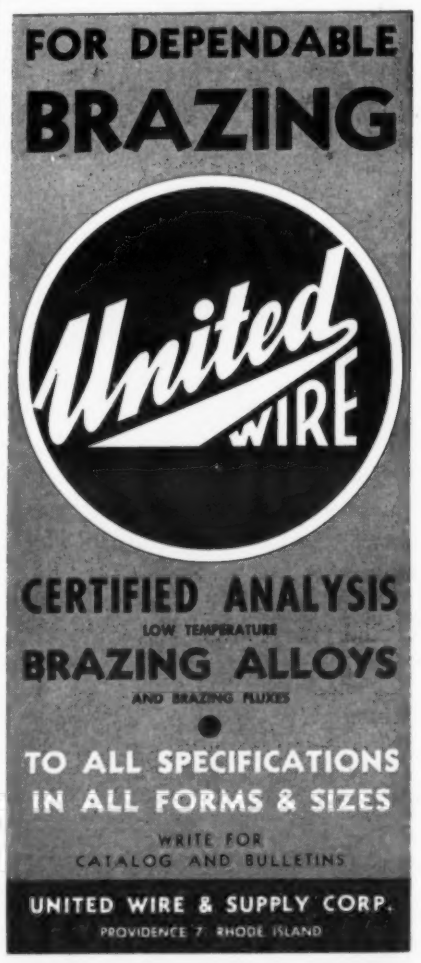
Object of the contest was to name the beagle pup. Prizes were: first, the hound and a Philco refrigerator; second, a Speed Queen washing machine; third, a Speed Queen ironer; next 25, hand irons; next 25, floor stand ash trays fashioned like a hound dog; next 150, merchandise credit orders drawn on the sponsors.

Cost of the promotion was set at $420 a week by Guenther, Brown & Berne, Inc., local advertising agency which participated in the event.

O'Dea Becomes I-H Dealer

DES MOINES, Iowa—The O'Dea Hardware and Paint Co., biggest of its kind in Iowa and one of the oldest in Des Moines, has been appointed a refrigeration dealer by International Harvester Co.

The store has been in continuous operation for nearly 50 years. William Broquist is president and William Davis is in charge of the appliance section.



INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)

me tell you what you did wrong."

Whereupon the Vice President in Charge of Sales launched into a long-winded discussion of sales strategy.

"Fellow like you ought to be encouraged," he wound up. "To bolster your sad lack of self-confidence, I'll give you an order for a 10 thousand dollar policy. But remember: *always memorize your approach.*"

"I do, sir," agreed the salesman, happily pocketing the signed order. "My approach to you was right out of The Book. It tells us how to sell to Sales Managers!"

Probing into a backwoods territory with his samples, a traveling salesman took the only bus available. The driver made an unscheduled stop at a crossroads point, where he met a lanky character in blue jeans. Said the latter:

"Jeb may be two-three hours late with them chickens."

"I'll wait," responded the bus driver, lighting his pipe and settling down comfortably.

Somewhat perturbed, the salesman inquired as to how late they would arrive in Metropolis.

"Oh, 'low as haw we-un 'll get there on time," reassured the bus jockey.

"But I distinctly heard you say you would wait here for two or three hours."

"Mm-hm. We don't run on schedule closer'n that."

And that will remind oldtime vaudeville patrons of two standard laugh-getters on the Orpheum circuit:

(1) Man tells the ticket-seller: "I want to take a late train to St. Louis." Back comes the reply: "Catch Number Six. It's generally late."

(2) Ticket-seller: "Do you want to go by Buffalo?" Man: "I should say not. By railroad."

Add Sales Stories

From *The Cable,* a Knights of Columbus publication (council 437) we lift this one:

The new salesman on his first trip through the territory called on an old storekeeper who was so deaf that the interview had to be conducted by writing.

"I am sorry you are so hard of hearing," the salesman wrote. "How long have you been this way?"

"Thirty years," was the answer.

"Have you tried the latest hearing aids?"

"None of them did me any good."

"Couldn't doctors do anything for you?"

"They told me to quit drinking so much."

"Did that help your hearing?"

"Yes, it did. I quit drinking and got so I could hear anything."

"Then how do you happen to be deaf again?"

"I decided that I liked what I was drinking better than what I was hearing."

"Here's how one enterprising salesman handles the price situation:

"Told that a competitor offers merchandise for less, this man smilingly replies, 'I have no quarrel with anyone who sells for less. After all, they ought to know what their merchandise is worth!' "—*Rotarian.*

"A salesman always kept his hat on while working at his office desk. When kidded, he shot back, 'That's to remind me I have no business being here.' "—FRANKLIN FIELD.

More Deadly Than the Male

"Women have a keen sense of humor. The more you humor them, the better they like it."—*Ladies' Home Journal.*

"The years a woman subtracts from her age are not lost. They are added to the ages of other women." —DAME DE POITIERS.

"Many Italians are fond of having their fortunes told. The other day one woman was told:

" 'It is terrible. You will be a widow soon. Your husband is going to die a violent death.'

"Asked the woman, innocently, 'And will I be acquitted?' "—*Le Digeste Francais,* Montreal.

"Our primary education is controlled by women, our social life exists for women, our literature is adapted to women, our manners dictated by women, our earnings spent by women."—GAMALIEL BRADFORD, *Biography and the Human Heart.* (Houghton, Mifflin).

Quotable Quotes

"He that loves reading has everything within his reach. He has but to desire, and he may possess himself of every species of wisdom to judge and power to perform."—GODWIN.

"In composing, as a general rule, run your pen through every other word you have written; you have no idea what vigor it will give your style."—SYDNEY SMITH.

"No man can read with profit that which he cannot learn to read with pleasure."—PORTER.

"People are paid wages for doing the things they are told to do. People are paid salaries for doing whatever is up to them to do without being told. The difference in words is small but the difference in dollars is amazing."—*Anon.*

"They say when you become so famous you don't need publicity, you will get it without asking for it. But Henry Ford wasn't taking any chances. Once on his birthday, he showed up at his office wearing mismated shoes—one comparatively new, the other quite worn and shoddy.

"When a reporter pointed out the situation, Mr. Ford soberly explained, 'I put that old shoe on to remind myself on my birthday that I was once poor and that if I do not watch my step I may become poor again.'

"Of course, the auto magnate had simply put on the wrong shoe in the dark—but he wasn't going to pass up a grand opportunity for getting a swell story in the newspapers!"—*Wall Street Journal.*

"Everybody's talking and worrying about what's going to happen. Office boys and bank presidents are trying to outguess the administration, Stalin, and Mac. Everybody seems to be jittery.

"We haven't any solution. All we know is that if everybody'd just dig in and do their best every day to serve their customers as well as they can, they wouldn't have time to worry and fuss.

"I'm sure I don't know when, as and if war is going to break out with Russia, and neither can I see any sense in loafing around the water cooler talking about it.

"I do know that we will do our best to keep you supplied with appliance switches, controllers, timing devices, and other stuff that you need almost every week to keep your plant running, whether it's turning out bombs or bubble gum.

"And we're here to serve."—(letter from a jobber to his customers).

Child Psychology

H. C. L. Jackson of the *Detroit News* (who is the author of a delightful Conjure House book, "Dogs, Cats, and People") tells about a mother of "the new school" of child training. Quoting Jackson:

"She comes right out and says that her five-year-old son Willie must not be thwarted; that any repressions might buckle up his personality.

"When she first started that line of talk, I thought she was just talking, and then came last Sunday, when Jones, my next door neighbor had taken his family to the country, for the day.

"I went out on my porch around 2 p.m. and there was that Willie-brat from the second house away. He was doing a remarkably thorough job of digging up Jones' garden. And about then, his mother came out on her porch. She yelled:

" 'Willie, come here!'

"Willie yelled: 'I don't wanna.'

"She yelled: 'But you should come and take your nap.'

"Willie yelled: 'I don't wanna.'

"She got cagey. She yelled:

" 'Oh, do come and take your nap, Darling. The rest will make you stronger, so you can dig up Mr. Jones' garden better!' "

Washington Scuttlebutt

According to that ever-reliable source of good yarns, the National Press Club bar in Washington, there is a Missouri Senator who is slightly —if not somewhat—perplexed.

One of his office employes told him that unless he raised her wages at once she was leaving to take another job at better pay.

"But I can't raise your salary," protested Senator James P. Kem, "it's frozen. National emergency, y'know. Inflation. . . ."

"O.K., I quit, then."

"As you wish," sighed Senator Kem. "Who offered you the job at higher wages?"

"The Wage Stabilization Board," she revealed.

Psalm to the Farewell State

"The Government is my shepherd, I need not work. It allows me to lie down on good jobs; it leadeth me beside still factories. It destroyeth mine initiative; it leadeth me in the paths of a parasite for politics' sake. Yea, tho I walk through the valley of laziness and deficit spending, I will fear no evil; for the Government is with me. Its doles and its vote-catchers comfort me. It prepareth an economic Utopia for me by appropriating the earnings of my own grandchildren. It filleth my head with false security; my inefficiency runneth over. Surely, the Government shall care for me all the days of my life, and I shall dwell in a fool's paradise forever!"—AUTHOR UNKNOWN.

Words of Wisdom

"I believe that if you think about disaster, you will get it. Brood about death and you hasten your demise. Think positively and masterfully, with confidence and faith, and life becomes more secure, more fraught with action, richer in achievement and experience."—CAPT. EDDIE RICKENBACKER.

"To the average person almost any question is like the moon, in that he never sees but one side of it."—OLIN MILLER, *Chicago Sun-Times.*

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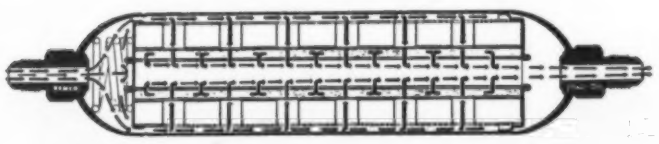

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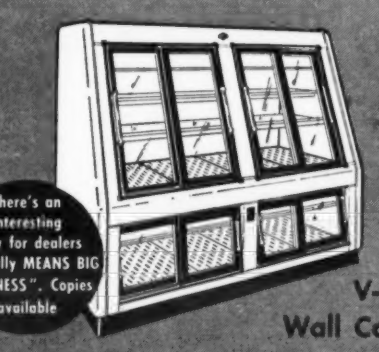

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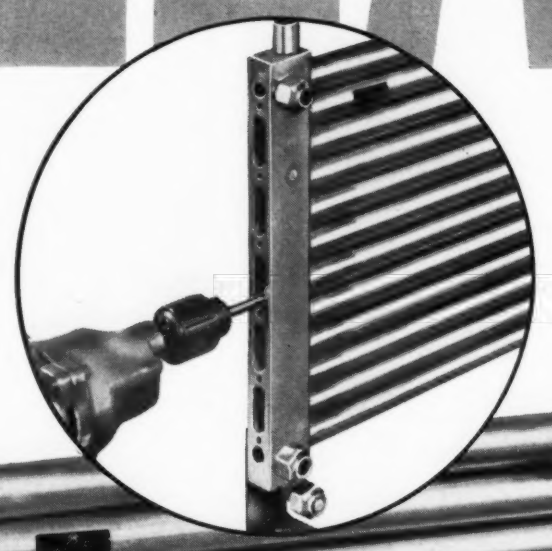

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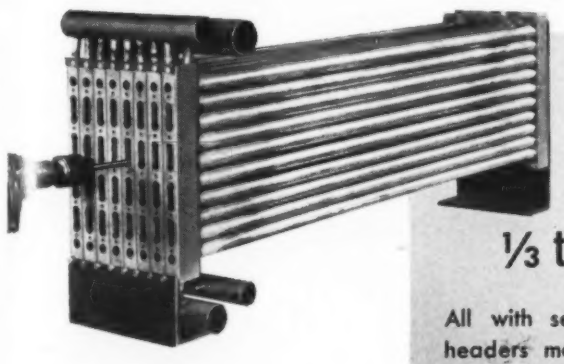

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FOOD ASSEMBLY LINE—The conveyor belt running between these food warming cabinets speeds food trays to the dumb-waiter at extreme left, enabling kitchen personnel at St. Luke's hospital, Toledo, to process 107 trays in 25 minutes. A 4-hole ice cream cabinet is installed in the line just to the left of George Davis, who is filling cream bottles in anticipation of a mealtime rush. Behind him is a 30-cu. ft. reach-in refrigerator.

Getting Institution Jobs

Bidding 'Whole Contract' Helps Refrigeration Firm Win $25,000 Hospital Installation

By John O. Sweet and George M. Hanning

TOLEDO—The institutional market in this area, as in many others, is a tough one for the commercial refrigeration and air conditioning distributor to crack.

Few such local firms have had much success in this field and not many even try anymore. Reason is that the "pots and pans boys"—as the refrigeration trade calls such suppliers—seemed to have an inside track on the market.

But one refrigeration man who has fought back with success is a comparative newcomer—James A. Foley, head of the General Electric distributorship bearing his name. He has been in business for himself only three years.

Foley says he tried for some time, without avail, to get contracts to install just the air conditioning and refrigeration equipment in hospitals and other institutions. So, almost in self-defense, he too started bidding on the whole kitchen equipment contract.

Now, with a toe-hold in the field, he's finding that one job often leads to another. That's how he got the contract for his biggest institutional job yet—a $25,000 installation in the St. Luke's hospital here (formerly the Robinwood hospital).

At St. Luke's, Foley's firm laid out and outfitted with stainless steel equipment both the kitchen and the adjoining coffee shop. In addition, the company equipped the hospital with a refrigerated blood bank unit and air conditioned three rooms.

This equipment was put in a new four-story wing which increased the capacity of the 45-year-old hospital from 105 to 200 beds. In the kitchen, Foley installed all the food-service equipment with the exception of the food tray conveyor system.

The 39-ft. by 66-ft. kitchen consists of cold-storage, preparation, cooking, serving, cafeteria-counter, and diet-kitchen sections plus a bulk-storage room and a dishwashing room.

In the cold-storage area are three walk-in refrigerators—two normal temperature and one low temperature. They are served by a 1-hp. condensing unit and a ¾-hp. unit in the adjacent bulk-storage room and hooked up to Bush unit coolers.

The cafeteria section serving hospital employes includes a 30-cu. ft. Puffer-Hubbard reach-in, a four-hole ice cream cabinet, a water station, and a salad case. The water chiller and the salad case are cooled by a ⅓-hp. condensing unit situated beneath the water station. Salads ready for serving are kept chilled by a cold plate rather than by chipped ice as is usually done.

The food serving areas has its own 30-cu. ft. Puffer-Hubbard refrigerator and an ice cream cabinet.

Provision was made in the food preparation, diet-kitchen, and dishwashing sections for future installation of waste disposers.

One of the interesting aspects of the kitchen is the "assembly line" setup for filling food trays. A series of food warmers line each side of the 26-ft.-long conveyor belt. The warmers are so arranged that each course can be placed on the trays as they move down the belt toward a dumb-waiter. A chain of finger-like projections on a vertical belt in the dumb-waiter automatically catches the trays and carries them up to the proper floor.

When operating smoothly, the conveyor belt line can move 107 trays to the upper three floors in 25 minutes. George L. Losh, hospital administrator, pointed out that the conveyor system is a big improvement over the former method of food distribution which was often so slow that foods became cold.

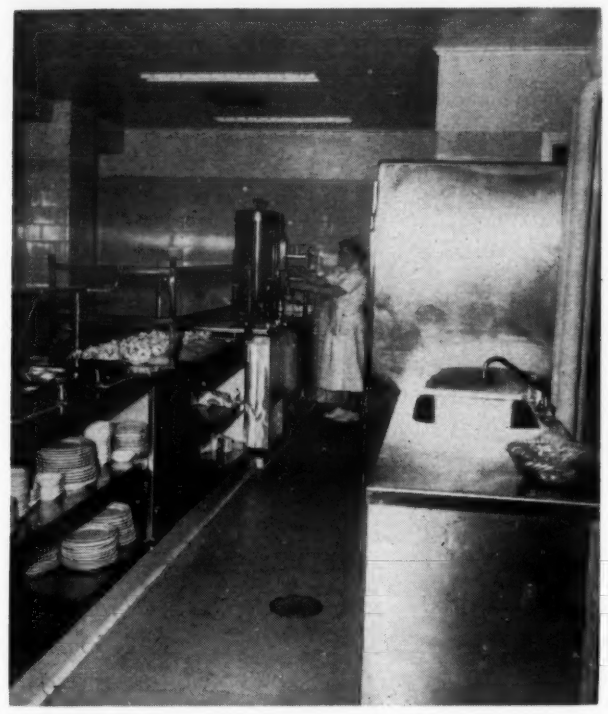
Empty trays returning down the dumb-waiter to the kitchen are automatically caught by the conveyor belt and moved to the dishwashing section.

Other equipment in the kitchen includes three gas ranges, a fryer, grill, steam kettle, steamer, baker's oven and hot plate, mixer, potato peeler, coffee urns, bain-marie, and cabinets and tables.

In the coffee shop, Foley installed the counter, under-bar equipment (three-bowl sink, shelving, and sliding doors), three Hotpoint grills (warmer, hotplate, and griddle) with

(Concluded on next page)

FOOD PREPARATION AND STORAGE AREA—All the equipment shown in this view, except the ventilator system over the ranges, was installed by James A. Foley, Toledo General Electric distributor. In the background are three walk-in coolers—two normal temperature and one low-temperature.



CAFETERIA—This cafeteria section is set up to serve hospital personnel in a hurry. Backed up by the 30-cu. ft. reach-in at the right, the food serving line includes a refrigerated salad case using a cold plate instead of chipped ice to keep salads chilled, a 4-hole ice cream cabinet, and a water chiller stand. A ⅓-hp. unit under the water chiller (in front of therapeutic dietician Betty Jane Smith) serves both the water chiller and the salad case.

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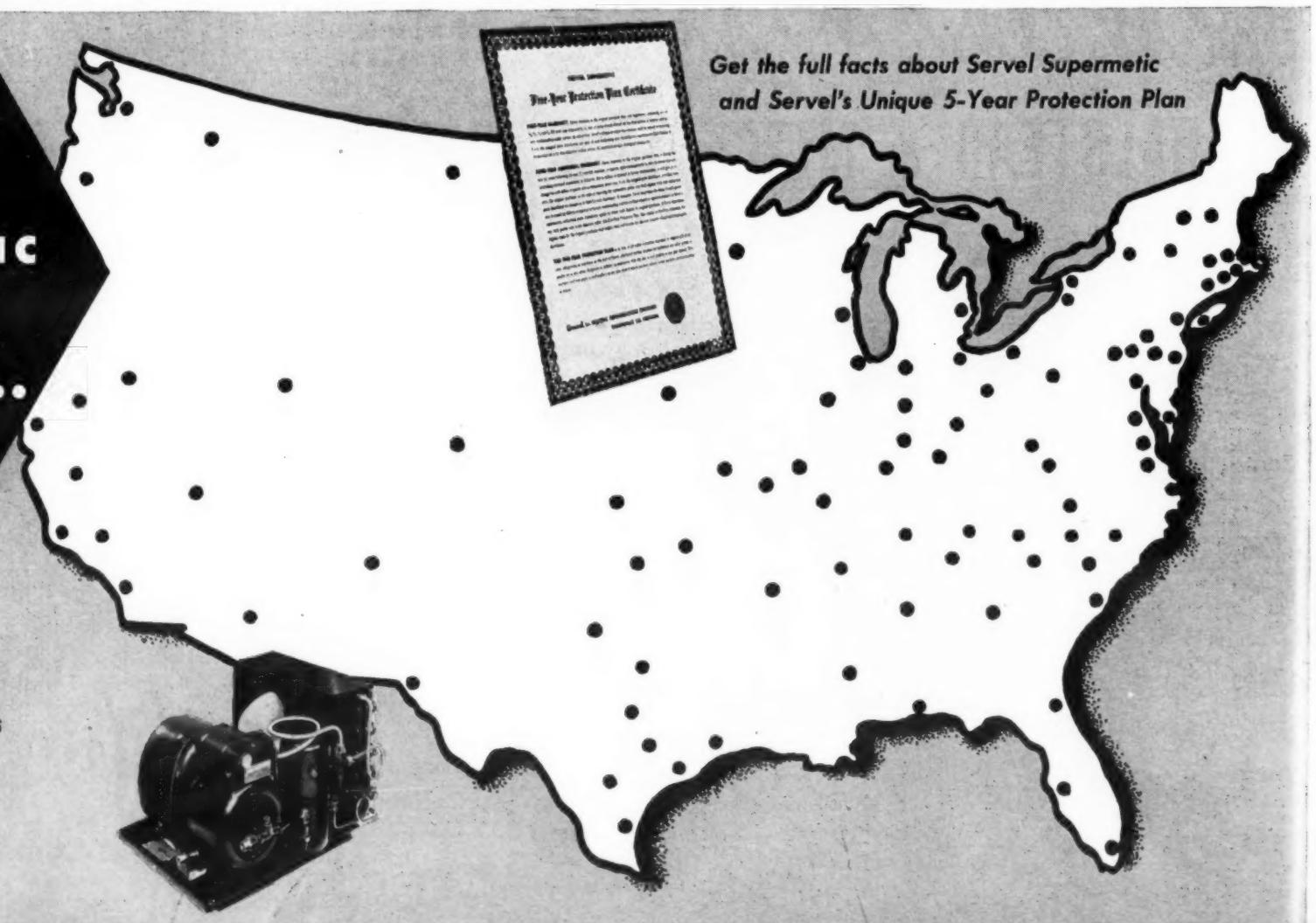

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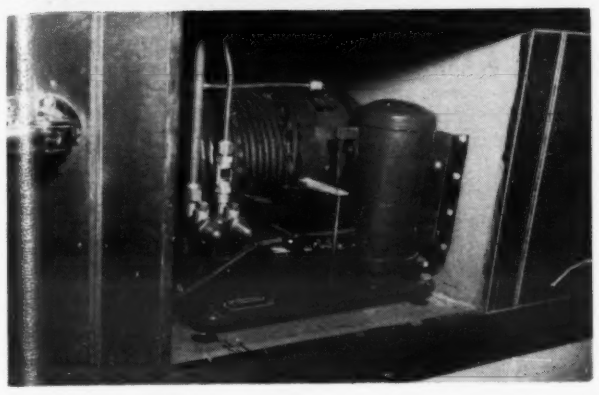

TIGHT SQUEEZE—The hospital coffee shop equipment shown above had to be custom built to specifications that allowed only little leeway. The condensing unit, shown at left, is installed behind the grille beneath the griddle where Nina Ordway is working. To save space, the water cooling coil was wrapped right around the compressor.

Toledo Firm Uses Pictures In Selling

(Concluded from preceding page)

overhead filters and exhaust, a refrigerated sandwich bar with glass filler, a four-hole ice cream cabinet, a utility cabinet, a pie case, and miscellaneous items.

The sandwich bar, which contains 15 cu. ft. of under-counter refrigerated storage space, is cooled by a ¼-hp. water-cooled condensing unit located beneath one of the grills. Due to the limited space available and to the extra heat load, Foley wrapped the water-cooling coil around the compressor.

Foley noted that very close measuring was necessary in planning the custom-built equipment for the coffee shop because specifications allowed little leeway. So compact was the layout that a quarter-inch of a stone window ledge had to be chipped away in order to get the ice cream cabinet into place. Custom-building was done by Foley's servicemen.

The St. Luke contract also called for Foley to install a Jewett blood bank refrigerator in the laboratory and to air condition the operating room and two other rooms.

Although Foley has been in business for himself only three years, he has been associated with General Electric in various capacities for about 25 years. Among other things, he was a sales engineer for G-E and a district manager for General Electric Credit Corp.

Foley's business quarters are somewhat unusual. Where many operators have big, modernistic showrooms filled with equipment, Foley has none! Where others have relatively spacious offices, Foley's desk is one of several crammed into a single, small office so crowded that movement about the room is more or less single-file.

But this sardine-can-like arrangement apparently has proved no handicap to Foley. His listing of past and current jobs—including many in the industrial and food market fields—gives one the impression that business is good.

"What do I need a showroom for?" Foley asks. Then he answers his own question:

"The prospect can learn all he wants to know about a piece of equipment from an installation or a picture. There's no need for him to look at the stuff in a showroom."

In his case, at least, the former Maine man seems to be right. In Foley's downtown Toledo quarters, which also includes a service shop, his 12 employes—two engineers, three sales engineers, two clerks, and five servicemen—have little idle time.

Detroit Code Proposals--

(Concluded from Page 1)

(The present Detroit code provides for three classes of contractor's licenses: Class A, which is limited to self-contained domestic boxes; Class B, which is limited to systems up to 5 tons, and Class C, unlimited.)

"They gave me the example of an ice cream company, say, which installs and services soda fountains and ice cream cabinets. The contractors said that a serviceman working for the company under the company's license goes out to service an ice cream cabinet, say, and the owner of the store asks him if he could service another piece of equipment in the store. The serviceman usually says he's busy now but he'll come back after 5 o'clock—quitting time.

"This," continued Drogosch, "is in direct violation of the law if the serviceman himself doesn't have a contractor's license. He could, however, service the equipment perhaps during his regular working hours under the license held by the ice cream company.

"Instead of making a change in the ordinance to add the Class D license, it was suggested by John Rehard, chief safety engineer of Detroit, that the board of examiners could make the change.

"It was suggested that we continue to issue Class A, B, and C licenses as we do now, but where the contractor's servicemen work only on company-owned equipment, the license be limited.

"Actually," declared Drogosch, "it wouldn't mean much except where we caught one of the boys in the act of servicing this equipment on his own after his regular hours. In fact," he added, "there are one or two contractor's licenses in effect now with limitations."

One of these, he said, is held by a firm which repairs compressors in its own shop. Because of the nature of the work, this firm was not too familiar with the installation requirements of the city's code, but such knowledge was not necessary in a shop operation of this type. Thus, the contractor's license was granted with the limitation that it applied to shop work only.

"We have a rough situation out in the field," pointed out Heemstra. "Ice cream companies are putting in all kinds of equipment and servicing it."

"They're forced by competition to put in other types of equipment," declared Jack Duncan, contractor and member of the board of examiners. "They don't like to do it, but competition forces it. The creameries would like to see such a change made. We're told that one of the biggest ice cream companies in the city would like to see this change."

"But the provision won't stop a creamery from buying equipment and giving it to their customers and then servicing it," commented Charles Purdie, another contractor who is a member of the board.

"Dairies today are actually giving open dairy cases to supermarkets," Duncan added.

"Policing this will be very difficult, but if we do catch someone it should help," Drogosch said. "Maybe after a period of years it would eliminate this problem."

"This is just one step in the right direction," added Heemstra.

"This would give creameries an out if they didn't want to service other equipment," Purdie declared.

Next step in having this provision adopted by the board of examiners will be for the contractors association to make the suggestion formally in writing, after which it will be officially acted upon by the board.

It was pointed out by one member of the board, however, that no direct comment had been received from firms that would be affected, such as ice cream companies, and that it would be desirable to get their opinions before issuing a ruling of this type.

Reaction of the board members at the first meeting was generally in favor of the proposal.

If adopted it could be made effective on all new applications for contractor's licenses, but would have no immediate effect on licenses already issued. Detroit, however, requires that contractor's licenses be renewed annually, so that the limitations on the licenses could be put into effect at the time of renewal.

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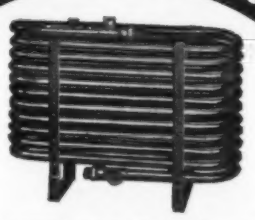

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LEFT: Well equipped shop of Refrigeration Parts Co. includes complete test equipment neatly arranged. Here a brake test is being run on a motor.

RIGHT: For the convenience of contractors and dealers, Refrigeration Parts maintains this delivery truck which follows a regular route through the metropolitan New York area. It is equipped with a mobile telephone to speed emergency deliveries.

Wholesale Repair Firm Gives Emergency Delivery Service with Phone-Equipped Delivery Truck

PART 2

Editor's Note: This is the second in a series of two articles describing the operations of Refrigeration Parts Co. of Brooklyn, wholesale distributor of Servel condensing units and parts for Mitchell and York air conditioners in the New York metropolitan area. Operated by James "Hans" White, the firm also repairs and rebuilds conditioners and other equipment for the trade.

The following article continues the outline of test and repair procedures on a typical window unit, giving details of shop operations.

When tests indicate the system is free from moisture and there are no leaks, the unit is charged with refrigerant and oil. Charges for hermetic units are critical, so at Refrigeration Parts charging of both refrigerant and oil is done by exact weight.

Refrigerant cooled in an old household refrigerator (which is also piped to supply cold drinking water) is weighed carefully into a small service drum from which it is charged into the suction side of the machine.

Oil is charged from a 50-lb. drum under pressure. A special hookup has been rigged to keep the oil both dry and under pressure to facilitate charging and also ensure that no moisture will be added to the dehydrated unit when it is charged with oil.

To do this a Pittsburgh Lectrodryer unit dries air to a -65° F. dewpoint which is then forced under 2 lbs. pressure into the oil drum. This means that a simpler dispenser can be employed if desired to remove the oil from the drum, and that the oil will remain dry to the last drop, White says.

After the system has been charged with both oil and refrigerant, the charging line is pinched off and silver soldered. Then the unit is thoroughly tested for efficiency by means of temperature readings, wattage checks, etc.

Assuming that the unit passes these tests satisfactorily it is cleaned in mineral spirits, and if necessary, sent into the spray booth where it is resprayed with the same color used originally by the manufacturer.

Incidentally, the switch controlling the exhaust fan in the spray booth also operates a solenoid valve in the compressed air supply line to the spray rig. This prevents anyone from using the spray without the exhaust fan running, a point of safety that might easily be overlooked, especially if the workmen were in a hurry.

This arrangement is typical of Refrigeration Parts Co.'s shop operations, according to White. It is required by law here, for example, to have a light on the grinding wheel. White has a double-pole switch on the wheel so that when the motor is switched on the light also comes on.

Spark plugs are employed to ig-

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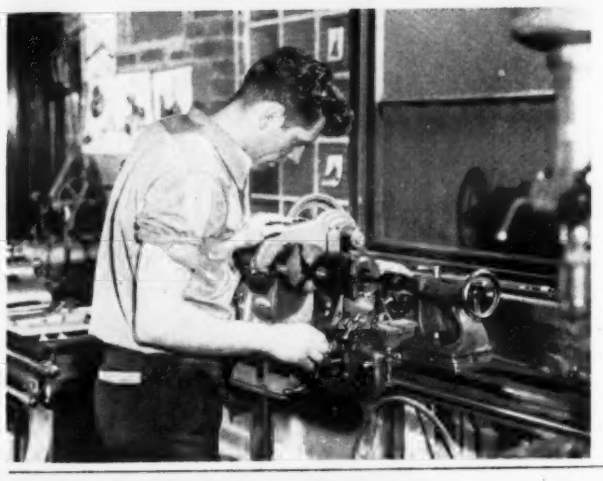
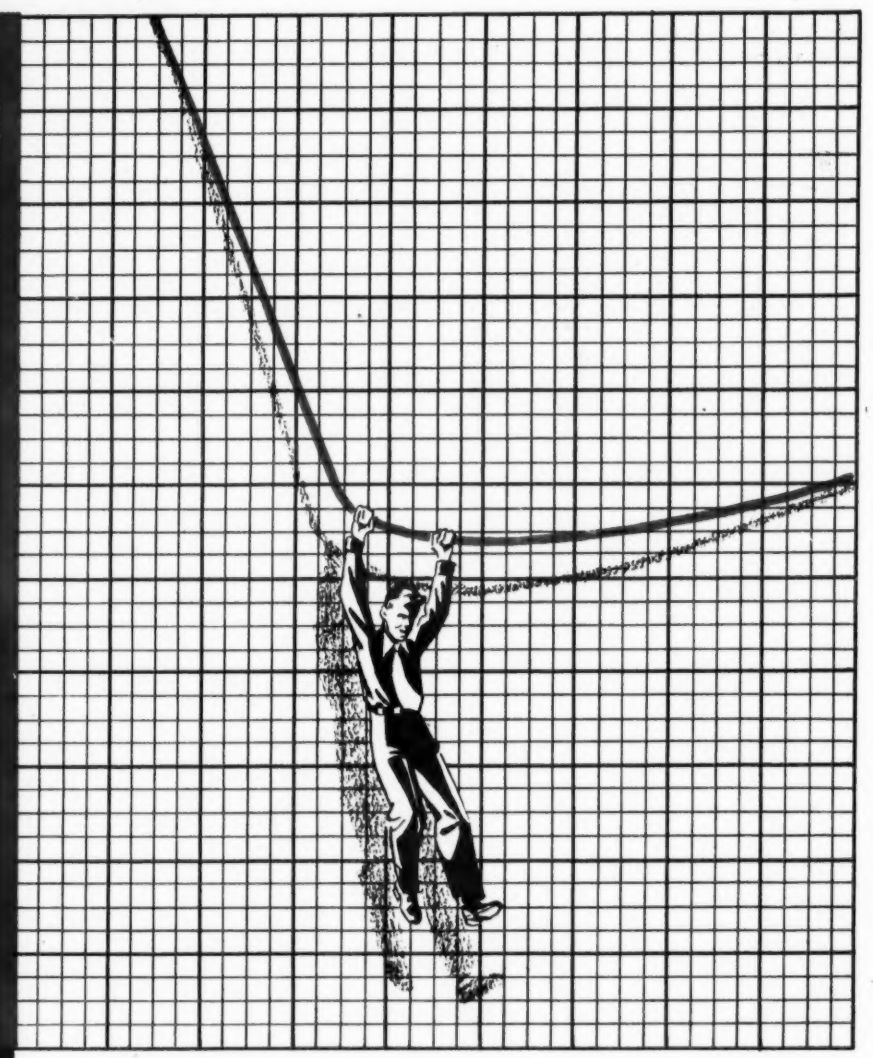


LEFT: Lathes are provided to permit such operations as refacing a commutator.

2 WAYS TO CUT SERVICE COSTS



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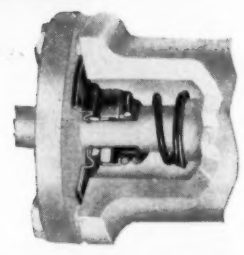

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Commercial Wholesale Repair Firm--

(Concluded from preceding page)

nite welding and soldering torches, and extensive use is made of the exhaust system to remove fumes and dust. There's a large exhaust hood arrangement for cleaning big units and a small one for motors, etc., so the dust as wiped or blown off the equipment is immediately exhausted from the working area.

Both alternating and direct current are supplied to each workbench with frequently spaced outlets. All machinery, including both lathes, is grounded to provide an additional factor of safety. Compressed air lines and outlets are conveniently located throughout the shop.

Another safety item which protects men and units is a special six-pole toggle switch.

"Often 220-volt current is used for starting hermetics that are stuck," says White. "But it's hard to switch from 220 to 115-volt current fast enough to avoid stalling the motor after it starts. This special toggle switch permits changing almost instantaneously from 220 to 115 volts."

He also points out that "wherever possible we avoid using hand shut-off valves in the refrigerant, air, and other lines throughout our shop. The men in the shop each use a different pressure in closing a hand valve and usually ruin the seats. Where we can, we use solenoid valves."

Besides rebuilding units, Refrigeration Parts Co. devotes some facilities and time to designing and building sealed systems using Servel hermetic units for small local manufacturers of such items as automatic refrigerated dispensers, White indicated.

The firm also tries to make it easy for purchasers of replacement parts for Servel condensing units and Mitchell and York air conditioners by providing them with an emergency delivery service. This is possible through having a cruising truck equipped with two-way telephone so that Norman Smallridge, the parts manager, can relay emergency orders directly to the driver of the truck.

Well-stocked with refrigeration parts, the truck usually follows a regular route throughout the metropolitan area. During the summer its daily schedule is this: from 9 to 11:30 a.m., Manhattan; from 12 to 2:30, the Bronx; 3 to 4:30, Queens; and from 4:30 to 5, the south end of Brooklyn. The parts department is also open Saturdays for the convenience of dealers.

VIA MOBILE TELEPHONE, driver of the Refrigeration Parts delivery truck receives instructions to make emergency delivery off his regular route covering the metropolitan area which he follows daily.

Sherer-Gillett Announces Distributor Financing Plan for Entire Country

MARSHALL, Mich.—The Sherer-Gillett Co. has announced to its commercial refrigeration distributors a financing plan covering the entire continental United States.

Actually, there are two plans—one for the financing of retail paper and the other, available to those operating under the retail plan, for the financing of wholesale or floor plan paper.

The retail financing arrangement will not only enable Sherer distributors to turn into cash retail paper on new Sherer refrigerators and the accessories sold with them, but will also permit of their financing the sale of used Sherer refrigerators as well as allied items such as shelving, gondolas, check-out counters, scales, slicers, and grinders, the company said.

The plan will enable Sherer distributors to stabilize financing by working through one channel on both retail and wholesale paper.

It is also expected that with adequate financing, their scope of operations can be considerably extended.

How Calif. Contractors Fare In License Exams

SAN FRANCISCO—A total of 442 candidates for licenses under the California Contractors State License Board, or nearly 50% of the 994 taking examinations in the Jan. 1 to March 1 period, failed to pass.

Applicants for refrigeration licenses, showed better aptitude than the general average, however, for in this class 14 out of the 18 candidates passed.

The best showing of all the 33 classes of specific examinations held by the board was made by the candidates for warm air heating, ventilating, and air conditioning. All ten applicants taking this test passed.

There are now 60,050 licensed contractors in California, of which 24,344 are general building contractors. A total of 378 contractors in the state hold refrigeration licenses and 562 hold ventilating and heating licenses.

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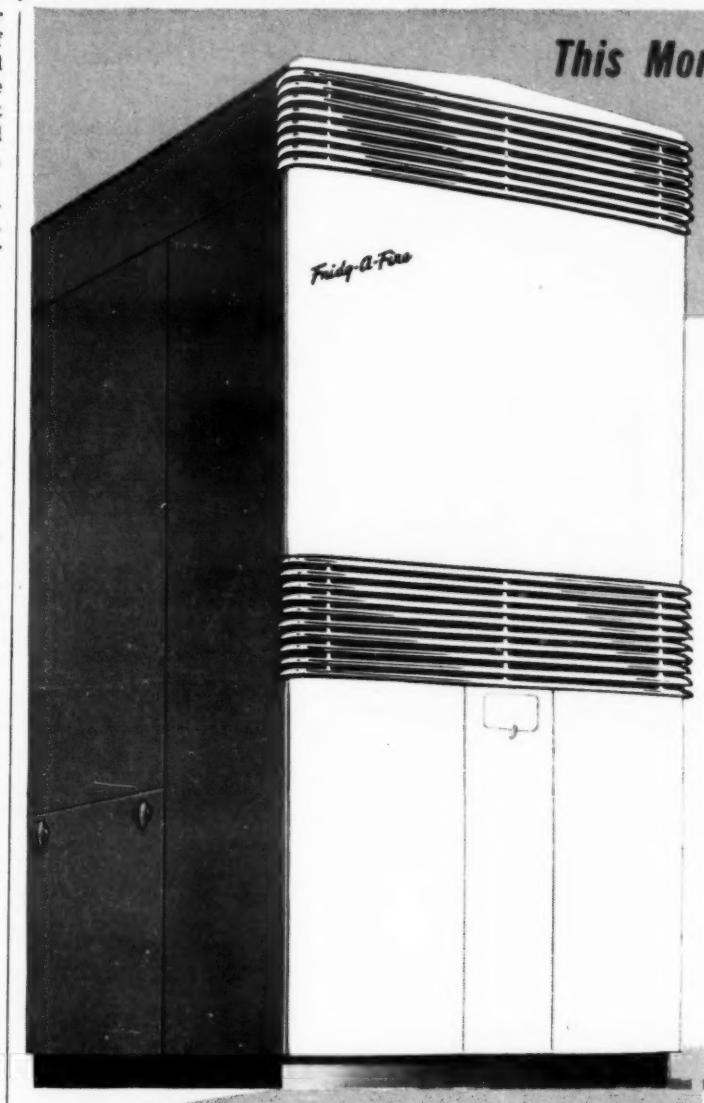

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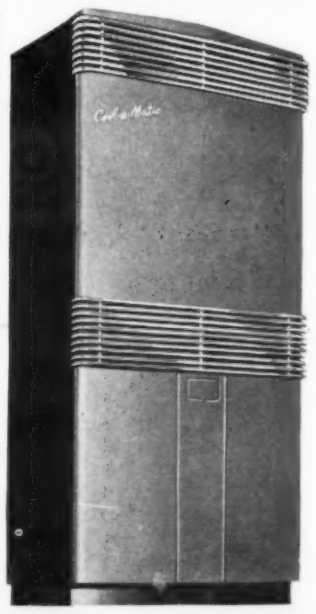

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Walk-In Refrigerators on Farms

Study of Some Existing Installations Shows How Two-Temperature Walk-Ins Were Built and Used

By Earl C McCracken, Harry L. Carver, and Joseph P. Hollingsworth*

In preparation for the development of improved plans and specifications for the construction of refrigerators on farms, the Bureau of Human Nutrition and Home Economics and the Bureau of Plant Industry, Soils, and Agricultural Engineering of the U. S. Department of Agriculture recently completed a study of 160 such constructions now in use.

These had been built according to plans developed or prepared by various agencies, primarily state agricultural experiment stations.

Because of expressed interest by rural families in two-temperature walk-in refrigerators, emphasis in the study was placed on that type of equipment. The two temperatures provide refrigerated storage for perishable foods at above-freezing temperatures (35° to 38° F.) and for frozen foods at approximately 0° F.

In addition to data on the types and costs of installations, costs of operation, and problems encountered in construction, maintenance, and operation, information was obtained as to the adequacy of the existing constructions, how they were used, and facilities necessary to meet farm families' needs.

The study was made in cooperation with the state agricultural experiment stations of Washington and Texas, in both of which states a relatively large number of these constructions are located. Also included were constructions in Ohio, Indiana, Nebraska, Oregon, California, Tennessee, Maryland, and Virginia.

Of the 160 installations seen during the study, five were of special types such as milk coolers, nine had separate chill rooms and freezers, 18 had chill rooms only, 26 had freezers only, and 102 were of the two-temperature type.

The results reported here are for all two-temperature constructions about which interviews were conducted and adequate information obtained. In many cases it was impossible to obtain data on each point of the study. Hence the totals in the summaries are not always 102.

Ninety-six of the 102 two-temperature refrigerators were home-built (built on the farm). Twelve were completely owner-built. Thirty-nine were built completely by contractors.

In the other 45 cases, the owner did the construction work and had the refrigeration equipment installed by a manufacturer's or distributor's representative or by an independent refrigeration serviceman or firm.

Two thirds of the installations visited were built within five years of the study, which was made during late 1948 and early 1949. More than one third of them had been in use three years or less. The average age was approximately 4.5 years; the oldest had been in use 11 years.

*McCracken is a physicist in the Bureau of Human Nutrition and Home Economics. Garver is senior agricultural engineer, and Hollingsworth is agricultural engineer in the Bureau of Plant Industry, Soils, and Agricultural Engineering.

Cost of Construction

Comparatively few users could give reliable figures on the cost of construction. Many of the installations were built as part of other remodeling or construction jobs and separate figures were not kept.

The quoted figures ranged from $195 to $4,000 with an average cost of around $1,350. More than half of the constructions were in the $750 to $1,500 range. Some of the costs given did not include paid labor. None of them included the money value of the labor of the farmer himself.

Very little trouble in the actual construction of the refrigerators was reported. The main difficulties mentioned were those of mounting heavy commercial doors and of getting doors to fit well with good seals. Problems of fitting and sealing were more pronounced with home-built than with factory-built doors.

In general the constructions were well done in accordance with the original plans. Whether or not difficulties due to defects in building would arise after a longer period of use was impossible to tell.

Of the 202 doors about which information was obtained, 98 (48.5%) were of commercial construction. The remaining 104 were locally built. Of these it was reported that 58 were built by carpenters and 34 by the user himself.

Refrigerator Capacities

Volumes of storage space in freezers and chill rooms varied, but, in general, were not based specifically on the needs of the user. In some instances the sizes were those specified in plans available from experiment station workers or others, but more often capacities were the result of expediency in construction or availability of space and failed to provide for future needs of the family.

All the two-temperature installations had walk-in chill rooms, and access to the freezer was from the chill room. Of the 96 home-built constructions, 34 had walk-in freezers, and 62 were of the reach-in type.

Most of the freezers were of the upright type with shelves, with access by means of vertical doors. A few of the reach-in freezers were of the chest type with lift lids.

In some cases these were complete cabinets set in the chill room with no wall in common with it. In others the rear wall of the freezer was part of the wall of the chill room.

As expected, the average space in the reach-in freezer was less than that of the walk-in type. Omitting the unusually large or otherwise exceptional constructions, the approximate average cubic foot values were 72 for the reach-in and 262 for the walk-in.

However, the difference in space ordinarily used for storage is not as great as the figures indicate, since, in a walk-in freezer, space is needed for the entrance of at least one person.

The average freezer space for both types, without the excepted cases, was 142 cu. ft. The chill rooms associated with the reach-in freezers were about 50 cu. ft. less in volume than those with the walk-in freezers. The figures were 277 and 323 cu. ft., respectively. The average chill room storage space was 291 cu. ft.

Number and Size of Compressors

Choice of one or of two compressors, in general, seemed to rest upon the individual recommendations of refrigeration men. In Texas the choice was fifty-fifty. In the other areas the choice was approximately three for the single unit to one for the two-unit installation. The overall picture was 67% for the single compressor against 33% for the two.

In Texas, when two were used, the compressors for operation of the chill room ranged from ⅓ to 2 hp., with 50% of them ¾ to 1 hp. In the other areas the range was from ¼ to 1 hp., with 62% either ⅓ or ½ hp.

For operating the freezer room, the range in Texas was ⅓ to 3 hp., with 57% ¾ or 1 hp. In the other areas the range was from ¼ to 2 hp., 57% of the compressors being of ½-hp. capacity.

These figures seem to indicate a tendency to use higher-capacity compressors in Texas than in the other areas. When a single compressor was used to refrigerate both spaces, however, in Texas 64% were in the range of ¾ to 1 hp., whereas in the other areas only 56% were of these capacities.

Types of Refrigeration and Refrigerant

Evaporator plates were used in the freezer room of 67% of the installations. About 23% used pipe coils and 10% used blowers. The percentage of blowers was about three times as high in Texas as elsewhere; of pipe coils only about one fourth as high.

In the chill room, blowers were most commonly used. About 63% of the refrigeration systems were of that type. Approximately 13% of the installations used pipe coils, 10% used finned coils, 3% used plates, 5% used a fan to blow cold air from an opening in the freezer room wall, and 7% depended upon leakage through the freezer room wall.

"Freon-12" was used as the refrigerant in 83 of the 96 installations, methyl chloride in 10, ammonia in two, and sulphur dioxide in one.

Controls and Miscellaneous Equipment

Sight glasses and heat exchangers of some form were common and almost all systems had at least one drier. Temperature control of motor operation was used more frequently than pressure control. Some systems made use of both methods. Only a few installations had any form of alarm to warn of rising temperature in either freezer or chill room.

The vapor barrier in more than 80% of the cases was asphalt paper and/or asphalt emulsion used in some way. Two of the installations had no vapor seal.

Insulation

Cork, mineral wool, vegetable fibers, and mill waste were used as insulation in almost 90% of both chill rooms and freezers. Mill waste such as planer shavings, sander dust, and sawdust, was only used in the northwestern section of the country. Chill room and freezer insulation ranged from 1.5 to 30 in. in thickness. In the Texas installations the range was less than in the other areas—from 3.5 to 12 in. for the chill room and from 2 to 18 in. for the freezer room.

There was no apparent relationship between thickness of the walls and the conductivity of the insulation. The constructions utilizing mill waste were uniformly of the greater thicknesses, perhaps because of the material's low price and availabality in quantity in the regions where it was used.

In general, insulation thickness was greater for the freezer space than for the chill room. In most of the lift-top, "set-in" freezers, however, and in some cases in the wall between chill room and freezer room, the thickness of the insulation was the same as or less than that of the exterior walls of the chill room.

Practically no user had any record as to the kilowatt-hour or monetary cost of operation of the completed unit in use. Many said that they did not notice any added amount on their electric bill.

The most common difficulties en-

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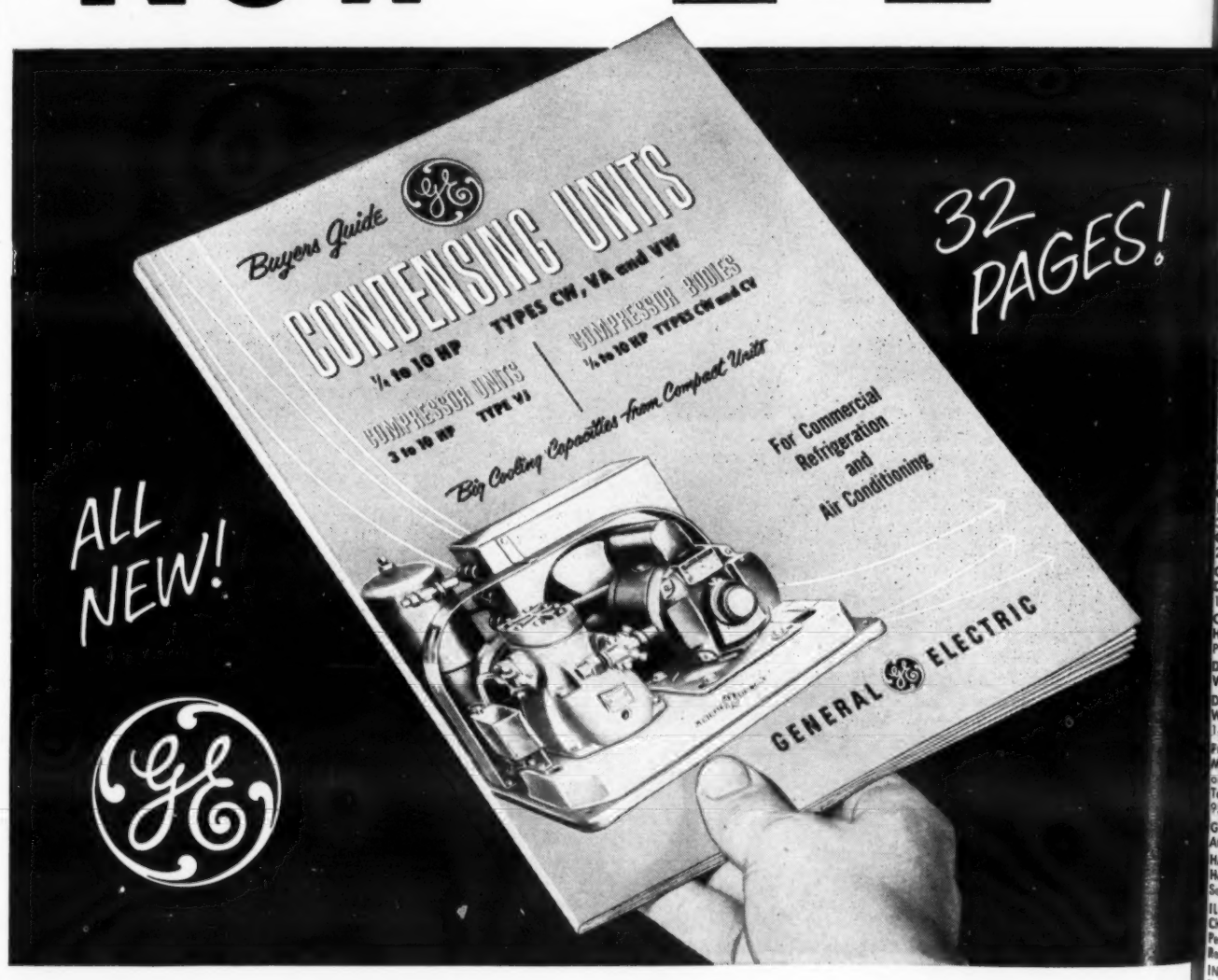
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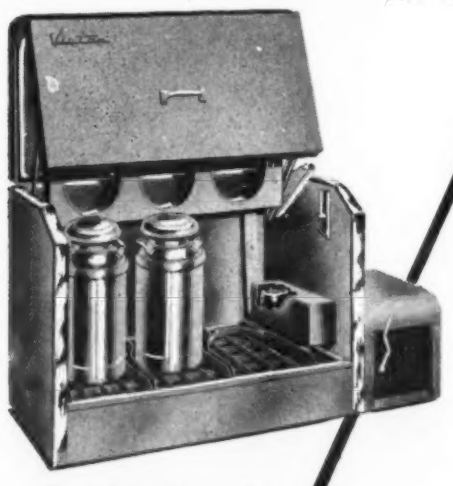

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How Two-Temp Walk-Ins Are Used on Farms

(Concluded frome preceding page)

countered in the refrigeration system were loss of refrigerant and faulty operation of controls. The latter was more frequent in single-unit systems.

Location of Refrigerators

In Texas over half of the installations were in locations other than in the residence. When in the house, more were on the ground floor—in utility room, breezeway, and back porch—than were in the basement. In the other areas studied the numbers of installations located outside the house, in the basement of the house, and on the ground floor were about equal.

One installation in Texas and four in the other states were built-in adjacent to the kitchen wall so that shelves in the chill room could serve as a kitchen refrigerator. Nine installations were in milk houses where the refrigeration facilities could also be used for cooling milk.

Temperature maintained in the freezer rooms varied from -20° to 16° F. Chill room temperatures ranged from 28° to 46° F. Many users were not aware of the temperatures necessary to give optimum quality but were pleased with their frozen food after storage even though it was evident that the conditions did not meet those generally accepted as necessary for maintenance of quality.

Use of Locker Plant Facilities

Many of the users of the home-built equipment had rented lockers before the construction of their own facilities. Eight still maintained locker space; 18 others had all their butchering done and the meats wrapped and frozen at the locker plant.

In addition, 24 had their meats cut and wrapped at the locker plant but froze the meat at home, and some used locker plant facilities occasionally. Poultry killing and processing were usually done at home.

Forty-four of the installations were within five miles of a locker plant, 30 were between five and 10 miles, 14 between 10 and 15 miles, and 13 over 15 miles. The greatest distance noted was 35 miles. The average distance in Texas was 12.5 miles and in the other areas studied was 7.25 miles.

Where specific information was available, it was found that on the average 1.6 families, or 6.8 people, were making use of a single installation; for Texas no data were obtained. When more than one family was involved, the additional family or families fell in three general categories, viz., children's or parents' families or other close relatives, farm tenants, and the installer of the refrigeration equipment.

Information given to the interviewers indicated that many of the constructions, except the installations made as the result of state agricultural experiment station activities, were undertaken only when a refrigeration man was a relative or close friend of the builder.

Because of the larger frozen-food-storage space, more families and people made use of an installation having a walk-in freezer. The average number of families and people making use of a single installation with walk-in freezer were 1.9 and 8.3, respectively.

Quantity of Food Stored

Figures obtained on the quantities of food stored in the freezer or passing through the chill room in a year were for the most part estimated, for very few families kept records. A better estimate could be made for meats put into the freezer than for fruits and vegetables. The amount of meat was greater for Texas than for the rest of the areas studied.

The average number of pounds of meat reported passing through freezer rooms of the installations in Texas was greater than in the other areas—2,530 lbs. compared with 1,490 lbs. The great difference between the two sections doubtless is more than geographical. The Texas installations in many cases were on ranches where a number of employes were fed.

Figures obtained as to quantities of frozen fruits and vegetables stored show a very wide range. This is due to the types of farms represented in the study. In Texas, for example, in many cases the raising of fruits and vegetables did not fit into the farm operation. These products always have been purchased as needed and there is no evidence that the policy will be changed.

In addition, some people prefer canned to frozen products, especially fruits. When figures were available, the average was somewhat less than 300 qts. of fruits and vegetables frozen per installation per year.

The average maximum load put in a freezer in any one 24 hours was around 400 lbs. which indicates that, in many such cases, the refrigeration system was seriously overloaded, perhaps at the expense of the quality of the food already in storage.

Little information could be obtained as to the exact quantity of food placed in the chill room during the year. From the estimates given, the maximum load placed in this room in any one 24-hour period was 625 lbs.

Except in cases of natural calamities such as flood, wind, and other storms, power outages were not of sufficient frequency or duration to be of general consequence. Low voltage was a cause for more comment than was the question of outage.

In making the study and in discussing with the users the problem of refrigeration on farms, the interviewers gained certain impressions. Definite among these was that farm families want their own refrigeration, regardless of the availability of commercial or community locker plant facilities. One homemaker said she would rather be without running water in the house than without this refrigeration.

How They Are Used

Many volunteered the statement that because of having a freezer at home it was possible to prepare and freeze small quantities of food in just the right condition instead of having to wait until a larger amount was available to take to the locker plant. Much satisfaction was expressed as to the quality of the frozen food after storage. Everybody was happy to have the conveniences of the facilities and the better eating afforded by them.

With a few significant exceptions, the primary reason for the construction of the refrigerator was the desire for frozen-food storage. Many times the higher-temperature (chill room) section was included because it was in the original plans submitted and could be incorporated at not too much additional cost.

In general, farm practices were changed but little as a result of the refrigeration installations; the facilities brought about a few changes in the varieties of garden produce grown and made it possible to butcher at any time of the year. Owners who had rented lockers prior to construction of their own units could not remember having made any major change in farm practice during that period.

The refrigerators, especially the chill rooms, were not used to the maximum, perhaps because they had been built from the specifications available, without consideration for the family's specific needs and preferences. The evidence indicates that the more functional the installation, the more completely it was utilized.

For instance, when the chill room had shelves or other facilities for convenient storage of produce, it was used. The few homemakers whose chill rooms included the reach-in feature opening directly from the kitchen were more enthusiastic about them than were the others.

Economics of the Installations

In most cases, little or no thought had been given to the money-saving or money-making possibilities of the installation. A few owners stated that they were able to get better, more stable help in rush seasons as a result of the refrigeration facilities, either because they could serve better food to their workers or because they could offer refrigerated food storage to a tenant or laborer and his family.

Some of the owners had realized the possibilities of money making after the refrigerator had been built. In one case a fruit grower had placed in the chill room a large portion of his apricot crop which he had been unable to sell at all at the peak of the season. Later he sold it at a good price. One homemaker close to a town used the facilities to expand a catering service.

For another owner, the freezer made possible participation in a farmers' market some distance from his farm without having to get up to dress poultry at 1 or 2 o'clock in the morning. Another poultry farmer reduced his number of 60-mile trips to market eggs from six to two times a week and at the same time improved the quality of his product with resultant higher prices.

In a few cases the refrigerators had been built for the purpose of increasing the farm income. A turkey raiser, for instance, built his freezer large enough so that he could slaughter his birds as they reached marketing size, freeze them, and hold them until price-peak seasons.

He thereby could choose the size for marketing to best advantage, could save feeding the birds through a less profitable growth period, and could spread the processing labor.

The cases in which owners were using the installations to augment farm income were so varied that it was evident that most other owners could have used them for that purpose if they desired. The impression was gained that such use of the facilities was more prevalent among lower-income owners.

Development of Designs

As a result of this study, the U. S. Department of Agriculture is constructing and studying experimental installations of walk-in two-temperature refrigerators. The designs include features that need further investigation.

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NEW MEXICO
Albuquerque, McCombs Refrigeration Supply Co., 322 N. First St.
NEW YORK
Albany 1, Wayne Merriam Inc., Maplewood Ave. Ext., P. O. Box 750, Stop 39, Schenectady Road
Brooklyn 16, The Capson Co., Inc., 106-108 Rogers Ave.
Flushing, The Capson Co., Inc., 40-16—149th Place, Queens
New Hyde Park, The Capson Co., Inc., 1014 Jericho Tpke., Nassau
New York 7, Paramount Electrical Supply Co., Inc., 19 Beekman St.
Rochester 4, Genesee Refrigeration Supplies, Inc., 55 Spring St.
Syracuse 1, Gould-Farmer Co., Inc., 1020 W. Genesee St.
NORTH CAROLINA
Charlotte, Walker Martin, Inc., 451 Atanda Ave.
Greensboro, Walker Martin, Inc., 827 Raleigh St.
Raleigh, Walker Martin, Inc., 840 Poole Ave., Salisbury St. Ext.
OHIO
Akron 8, Davey Sales Co., 170 South Forge St.
Cincinnati 2, Merkel Bros. Refrigeration Parts, 901 Bway.
Cleveland 8, Debes Refrigeration Supply Co., 1249 East 105th St.
Columbus 3, Mason Supply Co., 289 Cleveland Ave.
Dayton 2, Allied Supply Co., Inc., 359 W. Monument Ave.
OKLAHOMA
Muskogee, K and M Supply Co., 204 South 3rd St.
Oklahoma City 1, Jones-Newby Supply Co., Inc., 129-133 N. W. 23rd St.
Tulsa 3, K and M Supply Co., 220 E. First St.
OREGON
Portland 15, Rigby Refrigeration Co., 2232 E. Burnside St.
PENNSYLVANIA
Lansdowne, Hajoca Corp., 130 E. Baltimore Ave.
Philadelphia 1, Hajoca Corp., 31st and Walnut Sts., P. O. Box 7319
Philadelphia, Hajoca Corp., 2nd and Erie Ave.
Pittsburgh 12, Orr Inc., 1228-30 Brighton Road
Pittsburgh, Orr Inc., 5976 Centre Ave.
Reading, Hajoca Corp., 2nd and Grape Streets
Williamsport 34, Lowry Electric Co., Inc., 643 Elmira St.
SOUTH CAROLINA
Columbia 1, Perry-Mann Electric Co., Inc., 901 Taylor St., Seaboard Park
TENNESSEE
Knoxville 5, Leinart Engineering Co., 412 East 5th Ave., P. O. Box 508
Memphis 3, Wallace Johnston Distributing Co., 708 Linden Ave.
Nashville 3, J. B. Thomas Co., Inc., 1902 Church St.
TEXAS
Beaumont, Standard Brass & Mfg. Co., 705 Milam St.
Dallas 2, Electrical Supply Corp., 1101-07 McKinney Ave.
El Paso, M & M Refrigeration & Electric Supply Co., 403 Montana St.
Houston, Standard Brass & Mfg. Co., 2018 Franklin Ave.
Lubbock, Electrical Supply Corp., 419-423 Avenue L
Port Arthur, Standard Brass & Mfg. Co., P. O. Box 1469
San Antonio 5, Westbrook Co., 315 South Main Ave.
UTAH
Salt Lake City, Refrigeration Distributors Corp., 132 South Second West
VIRGINIA
Richmond, Hajoca Corp., 1208 West Marshall St.
Roanoke 5, Southern Refrigeration Corp., 1850 S. Jefferson St.
WASHINGTON
Seattle, Rigby Refrigeration Co., c/o Refrigeration Wholesalers, Inc., 2228 Second Ave.
WISCONSIN
Milwaukee, Vincent Brass & Copper Co., Inc., 1025 N. Water St.

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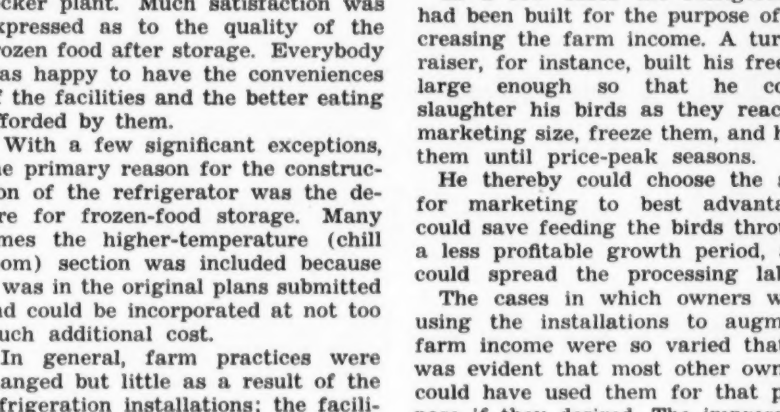

DEAN EVAPORATOR PLATES

There's a DEAN cold plate for every application . . . designed and built by men who have years of experience and practical "know how" in solving difficult refrigeration problems . . . your guarantee of quality.

DEAN makes cold plates for ice cream cabinets, locker plants, soda fountains, farm milk coolers, farm freeze cabinets, low temperature test rooms, frosted food refrigerators, window displays, food counters, refrigerated transportation and sub-zero applications for industrial chilling. Custom built plates available on special order, such as cylinders, U's, angles, tanks, stainless steel, etc. Plates also available for Baudelot-Type Coolers.

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DEAN PRODUCTS, INC.
Factory & Main Office
1042 Dean Street, Brooklyn 16, New York

They'll Do It Every Time . . . . By Jimmy Hatlo

SCENE 1: OUTER OFFICE OF TITWILLOW BIRDSEED CO.··· TIME: 1927··· MORTIMER BOBBLE SPEAKS···
THAT DOES IT!! I'VE HAD ENOUGH!! THIS PLACE WOULD DRIVE ANYBODY CRAZY!!! I'M QUITTING!! LET 'EM GET SOMEBODY ELSE!! I'M THROUGH! THROUGH!! I TELL YOU!!
TIMMY FAILS
SCENE 2: SAME AS SCENE 1 EXCEPT FOR UP-TO-DATE FURNITURE··· TIME: 1951··· MORTIMER STILL RAVING····
THAT DOES IT!! A MAN CAN ONLY STAND SO MUCH!! THIS IS FINAL!! FRIDAY I WALK OUT!! I'M THROUGH!! I QUIT!!! UNDERSTAND?
4-19
THANX TO FRANK MAXWELL, (OUTER OFFICE), NEW YORK, N.Y.
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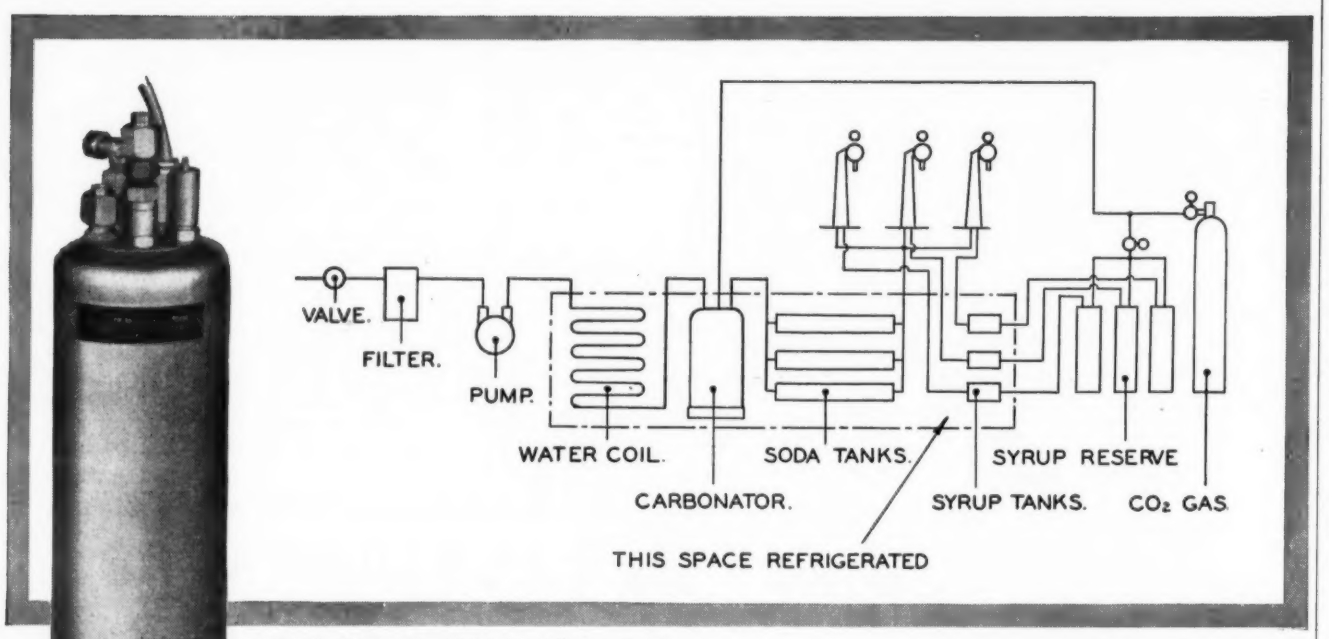
Do You Have 'Both Feet On The Ground'?

Highly versatile Temprite Carbonators adaptable to all types of installations



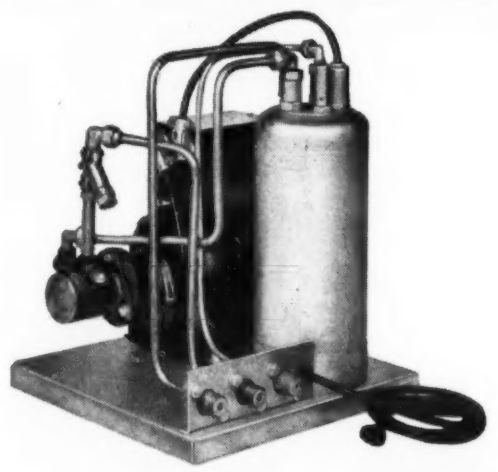
TYPICAL SODA FOUNTAIN installation showing the Temprite Carbonator located within the refrigerated compartment, with the pump assembly remotely located.

The most significant feature of a Temprite Carbonator is its *unusual versatility*. For example, the pump may be installed in a remote location (as shown above) to save valuable space within an existing fountain, bar, vending machine, etc., or the carbonator may be obtained as a complete package mounted with pump, motor and relay assembly, for a fast and easy hookup!

Measuring only 5" O.D. x 15" high, the Temprite is a compact easy-to-work-with unit; actually delivers an amazing 6450 glasses of highly carbonated water from a single 20 lb. tank of CO_2 gas. No purging or venting required! No gas wasted!

Temprite Carbonators are ideal for applications where mechanically refrigerated water or soda water coolers, sweet water baths or cracked ice cooling systems are used.

NOW IS THE TIME to investigate the exceptional profit possibilities with Temprite Carbonators.



(Above) The neat Temprite Packaged Carbonator is a completely self-contained unit. The Carbonator, together with pump, motor and relay assembly, is mounted on a sturdy metal base. Water inlet, CO_2 gas inlet, and soda water outlet lines terminate at a rigid connection panel, along with a power supply cord.

TEMPRITE PRODUCTS CORP.,
P. O. Box 72-A
Birmingham, Michigan

Please send me details on the Temprite Carbonator line.

Company name_____

Address_____

City_____ State_____

Signed_____

"Be right with Temprite"

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P.O. BOX 72-A, EAST MAPLE ROAD
BIRMINGHAM, MICHIGAN

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AIR CONDITIONING AND REFRIGERATION News

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F. M. COCKRELL, *Founder*

Published Every Monday by BUSINESS NEWS PUBLISHING CO.
450 W. Fort St., Detroit 26, Mich. Telephone Woodward 2-0924.

Subscription Rates: U. S. and Possessions, Canada, and all countries in the Pan-American Postal Union: $5.00 per year; 2 years $8.00. All other foreign countries: $7.00 per year. Single copy price, 20 cents. Ten or more copies, 15 cents each; 50 or more copies, 10 cents each. Please send remittance with order.

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VOLUME 63, NO. 2, SERIAL NO. 1,156, MAY 14, 1951

"I have always felt that whatever the Divine Providence permitted to occur I was not too proud to report. The people are not served by pussyfooting, or by that sort of journalism in which nobody will ask who is the editor of a paper or the writer of an article, and nobody will care."—*Charles A. Dana.*

Our Industry Can Help Architects

ARCHITECTS ARE as essential to the construction of a large building as the foundation on which it rests. But contractors sometimes question their knowledge of air conditioning and refrigeration.

This is particularly true of contractors who set out to bid on jobs to the architect's specifications.

Chief complaint echoed by contractors is that the knowledge of refrigeration and air conditioning possessed by some architects is sadly out of date. In other words, the architect is not familiar with modern developments in the thriving and still youthful refrigeration and air conditioning industry.

Without doubt the busy architect has difficulty in keeping up to the minute on all the arts that go into the construction of a building. However, large architectural firms generally employ mechanical specialists who are responsible for the refrigeration and air conditioning layout. For them the task of keeping informed on latest developments shouldn't be quite so burdensome, but several, apparently, still find it a problem.

Contractors declare it's difficult if not impossible to live up to the letter of architects' specifications in bidding on some jobs, and later, if the bid was successful, in actually making the installation.

For example, we saw one large installation not so long ago that went in according to "specs" except where it was impossible to do so. In too many ways to detail here, the layout of the job was antiquated. Not that it wasn't improved over Noah's time, but it was hardly up to 1951 practice.

The contractor pointed out that the architect had specified exact sizes of refrigerant lines, and in nearly every case these were 'way too large. An astounding number of reducing fittings had to be employed to connect the lines to the other components of the system.

There were other things, too. Machine compartment housings specified and constructed for reach-in coolers on this job were at least twice as big as necessary. Obviously, the man who laid out the job failed to realize that modern developments in the refrigeration industry permit much more compact design with economy of materials and space.

When it comes to deciding just what makes of equipment are to be installed all along the line, it's questionable, too, whether the architect is much of a factor.

Most of these decisions are left up to the contractor, particularly with respect to the smaller components. Even on the larger items, the contractor has to show both the customer and the architect the proper type and make of equipment to be employed to give the performance desired.

To their credit, a great many architects do call in a qualified and experienced refrigeration man to help in drawing up the plans and specs. Sometimes he's a consulting engineer. Others will depend on a contractor with a good background.

A good contractor or experienced consulting engineer must keep informed on the progress of his industry. Thus, each is well qualified to advise the architect as to the best way to achieve a desired result. Frequently this results in savings of both time and money.

Whichever method is used, it should work out to the mutual advantage of architect, engineer, contractor, and most important, the man who's paying the bills—the customer.

Controlled Materials Plan--

(Concluded from Page 1)

asterisk, they fall under CMP. These manufacturers must fill out an application for each classification or product and mail them to NPA before May 31.

Generally, manufacturers of air conditioning and commercial refrigeration equipment and their components will have to file their requirements. Manufacturers of domestic appliances and all consumer durables will not. The latter, however, will have to file for materials for all parts to be used for repair purposes.

At the same time, these developments occurred:

1. The Defense Production Administration was reported to be urging the rationing of the three controlled metals by July 1, rather than waiting for the CMP program to get rolling. CMP is not expected to have much real effect before next fall or winter.

Purpose of this would be to adjust inequities in the distribution of these materials. The proposed rationing would suspend the priorities of those industries which are not producing up to the amount of their allocations and channel these "surplus" materials to industries which are entitled to them but have not been able to get them.

Dairy Equipment Industry Expected To Benefit

The dairy equipment industry is expected to benefit by any such rationing, while the appliance industry would be permitted to produce more than originally planned during the third quarter.

2. NPA discussed with its Automobile Passenger Car Industry Advisory Committee the possibility of limiting third quarter production to 70% of unit production during the first half of 1950.

This represents a shift in control from the raw materials used to the end product produced. The committee opposed such a shift, but urged that the same type of control should be applied to manufacturers of other consumer durables as is applied to the automobile manufacturers, whichever it may be.

3. John F. Skillman of the NPA production controls staff, in a talk in Cleveland, attempted to clarify the purpose of the CMP, explained how it is expected to work, and answered specific questions on operation.

CMP, according to Skillman, is strictly a balancing operation by which NPA can balance one productive job against another. It uses steel, copper, and aluminum as the tools by which such production can be balanced: steel because it is used in almost every military end item, copper because it is so important in the electrical and electronics field, and aluminum because it is so important in the aircraft program.

"CMP is nothing but a good set of books," Skillman explained. "It keeps an accurate account of the steel, copper, and aluminum that go into defense and defense-supporting programs.

"For the first time, then, we'll know after we get your applications exactly how much material is going into the defense program. We should know exactly how much is left over for civilian goods."

Two Changes from World War II Plan

Skillman pointed out that there were only two important differences between the present CMP plan and the one used during World War II. One is "open ending" and the other, decentralization.

By "open-ending" is meant that when more critical materials are available than are needed to fill defense orders, they will be allowed to flow in normal manufacturing channels provided they live within the NPA regulations.

Decentralization will work this way: For the first quarter of operation manufacturers will be asked to file in Washington, D. C. and all applications will be processed there. At the end of the first quarter, NPA will set certain quantity limitations. Everyone falling below those quantities will apply in the field office, the remainder will continue to apply at Washington.

World War II showed that out of 45,000 applications, 5,000 accounted for 85% of the controlled materials and the remainder took the other 15%. So, NPA plans to handle the large group that requires only small amounts of materials through its field offices, Skillman said.

One of the big problems faced by CMP planners is where to draw the line between essential industries that should get allocations and those that will have to scramble for what steel, copper, and aluminum they can find.

Skillman explained, "If you will carefully examine that list (of manufactured products for which no applications are called for), you will see that every one of those items was shut off in World War II at one time or another.

Where To Draw the Line

"We could get agreement that if you could shut it off in World War II it would make a good place to draw a line right now for informational purposes only.

"In other words, by drawing that line, we have asked all others to come in under CMP, to file applications telling us what material they need and for what program.

"When we get that and add it up, for the first time, then, we can factually determine how much is left for that broad area covered on the other side of the line. For the first time we will have tonnage and poundage figures of availability of steel, copper, and aluminum for those consumer durable goods items (including appliances).

"Then, and then only, can we make some intelligent decisions about what should be done or what must be done in those areas. . . .

"If you find your business . . . on the side of that line that says you must file an application for CMP, it does not mean that we are guaranteeing you at this moment an allotment of material.

"It does mean that it looks to us as if we would have to allot material to you, but we will not know definitely until we get all the applications in and add them up.

What Is Left Belongs To Consumer Durables

"Once we can do that, we can determine what is left if we gave you all you need at this time—what is left for the consumer durable goods field.

"Suppose your applications come in, as they may, and show that there's only 10% of our entire steel supply left for that whole consumer durable goods area.

"It should be obvious that we are not going to shut down that area. We've got to balance some of those programs, which we can do under CMP, to make more materials available for that consumer durable goods area.

"I think that if you can get that concept of this first quarter operation of CMP, it will go a long way to clarify what the government is trying to do at this time. . . . The first quarter of operation under CMP is very much in the nature of a dry run . . . (It is) a training period for you as well as for us."

Following his talk, Skillman answered questions from the floor. Here are some of the questions and Skillman's answers.

Q. How can we run our business with only 45 days inventory—that is, until July 1?

A. A general "P" order has been prepared giving the DO privilege to all programs that have been approved so far (through April).

Q. Is that authorization going to be given at the local offices or do you have to apply?

A. You don't have to apply. The old "P" order merely states that certain programs are hereby authorized to use the DO rating in purchasing their materials. No application is necessary.

Q. Will you describe in greater detail what you think will be the course of events during the period of change from DO orders to CMP?

A. CMP Regulation 3 is a regulation describing what happens during that transition period. DO ratings and directives will be honored at the mill level right along with allotment numbers. As fast as you get allotment numbers on your first application, you will notify the mill holding your order that they can now write allotment number so-and-so alongside the present DO. The mill will honor DO's and allotments during that transition period.

Q. Are DO's out entirely under CMP?

A. No, of course not. Whenever you get an authorized program and a CMP allotment for steel, copper, and aluminum, you get a DO order right along with it. The DO rating, of course, is to buy the things you need in your production other than steel, copper, and aluminum. You will still need a DO rating to get many critical items.

Q. How will CMP affect present regulations and M orders?

A. There will be a great change in many of the present regulations. . . . Once we have found out how much material is left over for the consumer durable goods area, if we must regulate that area in order to consume only so much material, we'll do it by a whole series of orders controlling the output by unit. In other words, we might cut refrigerators 30% (for example).

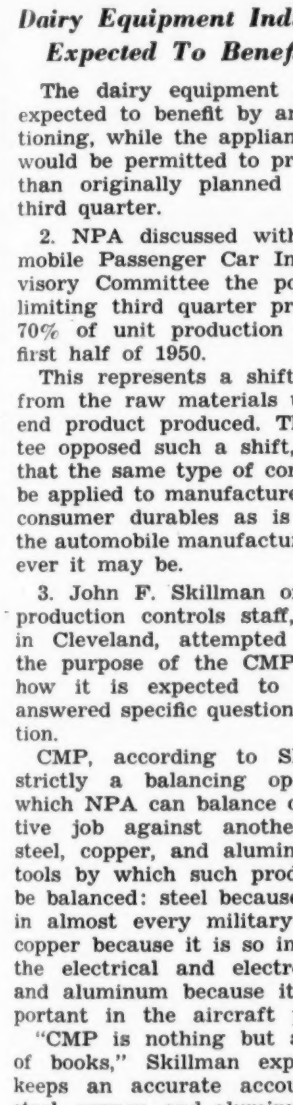
By the same token, the present M orders that control the use of copper, steel, and aluminum and others will be changed, but especially these three, because, at present, there are many M use restrictions in those orders that we can remove under CMP.

Q. You mentioned steel, copper, and aluminum. How about brass?

A. Brass will again be handled under CMP as one of the forms and shapes of copper.

Q. Assume government determines how much material is required for defense and how much for civilian production. Will manufacturers scramble for the free materials?

A. Yes, they will, just as they always have. . . . (But by issuing M orders) we can keep that scramble within reasonable bounds. Let's hope that we don't make it so easy for everybody that we forget how to scramble. . . . We're attempting right now to write into Regulation 1 of CMP a thing that I would call a small order exemption, and it will state that people who use less than a certain quantity of steel, copper, and aluminum in a quarter can self-assign an allotment number which is used for small business, and we'll measure that the first quarter and see what it is going to do to us.



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63

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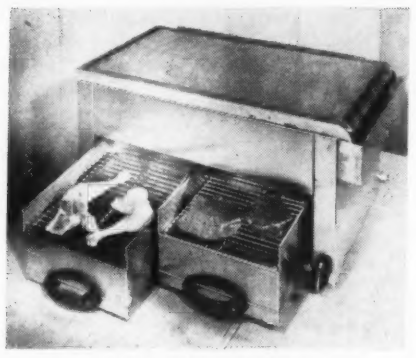
What's New

When requesting further information on new products, please use "Information Center" form.

Griddle, Toaster, Broiler Combined In Counter Unit



—KEY NO. A-520—

SOUTH HACKENSACK, N. J.—A complete counter kitchen in a single stainless steel unit is provided in the combination griddle, toaster, and broiler manufactured by Aeroil Products Co., Inc. here.

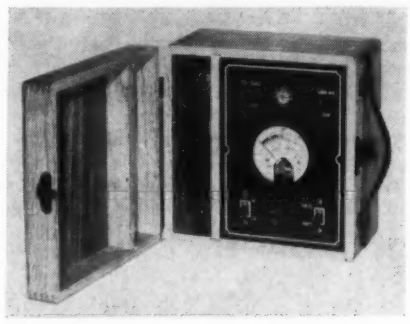
Called the "GTB Counter Kitchen," the unit occupies only 29 runniing inches on the backbar and is only 18 in. deep. It is said to operate on manufactured, natural, or bottled gas. Even heat over all cooking surfaces is amplified by a forest of tiny ceramic reflectors around the burners.

The heavy cast stainless steel griddle on top of the unit heats evenly because of specially designed ribs on the under side. It is easily cleaned by merely scraping grease and scraps into a drip pan attached to one side of the unit. It is surrounded on three sides by a gutter which delivers excess grease to the drip pan. The drip pan lifts off for emptying.

Beneath the griddle are drawer-type broiler and toaster units. These two units are interchangeable so that the operator can have either a broiler and a toaster set, two broilers, or two toasters. The extra units are available at extra cost.

No raising or lowering of the broiler rack is necessary because of the scientific construction of the radiant heat deflecting unit. The rack is set permanently at the spot where cooking is said to be fastest.

The toaster basket is made of heavy steel wire with a coating of nickel alloy. The racks are made to receive four slices of toast at one time. All four slices are turned over at the same time with a twist of the control knob. They snap into position automatically.



5-In-1 Tester Analyzes Appliances Up to 2 Hp.

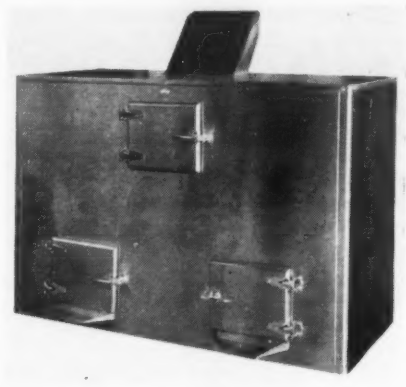
—KEY NO. A-521—

NEW YORK CITY—A new 5-in-1 combination voltmeter, ohmeter, and ammeter within a single unit has been introduced by Technical Refrigeration Service, it was announced by Henry Ehrens, president of Sealed Unit Parts Co., Inc. here, sole distributor.

Developed after longtime study of testing methods used by appliance servicemen, the test meter offers fast and accurate analysis of appliances up to 2 hp. Tests can be made from amperes to volts without breaking leads.

Housed within an oak case less than 1-ft. sq., Tester Model R-50 has a transformer-type meter enabling it to withstand a 300% overload.

A.C. voltage ranges are 0 to 150 volts and 0 to 300 volts; a.c. current ranges, 0 to 3 amperes and 0 to 15 amperes.



Bins for Ice Makers Made by Chicago Firm

—KEY NO. A-522—

CHICAGO—A complete line of ice storage bins for "York" ice makers is announced by Wm. Mannhardt & Son of Chicago.

The line includes storage cabinets for the output of York 450, 450C, DER 11, and DER 25 machines, in approximate capacity of 400 lbs. for the 450 series and 1,000 to 4,000-lb. capacity for DER 11 and DER 25.

A selection of construction can be had in any model bin to meet required specifications and price. They are furnished with stainless steel or hammertone finish steel exterior and stainless steel or galvanized interior. Fiberglass insulation is used throughout.

Glasfloss Packaged In Standard Rolls for Filters

—KEY NO. A-523—

NEW YORK CITY—A glass fiber air filter media known as Glasfloss Roll-Pak, has been made available to the trade in rolls 40 in. wide and 10 ft. long, the manufacturer, Glasfloss, announced recently.

The new product is said to be the same media as used in the company's line of standard filter units. It is made up of long, fine glass fibers with low air resistance and high filtering efficiency, that are moisture-proof and fire-resistant.

Glasfloss Roll-Pak is made up in standard size rolls in both 1 and 2-in. thicknesses. It is packed five rolls to the carton and provides air filter coverage of 167 sq. ft.

Coarse wire screening, similar to chicken wire, can be used on both input and output sides of the filter. Once installed, there is no need for replacement of this screening. Only the filter element is disposed of. This saves the cost of frames (said to be about 30% of the total) when compared with use of standard filter units, the company declared.

Glasfloss Roll-Pak is simply rolled out, cut to size, and installed between the screening.

Double-Head Freezer Adds Batch-Feeding Feature

—KEY NO. A-524—

SEATTLE—The Sweden Freezer Mfg. Co., maker of soft ice cream and frozen custard freezers, has introduced a double-head 2½-gal. batch-feeding freezer as an addition to its 1951 line of direct-service freezers.

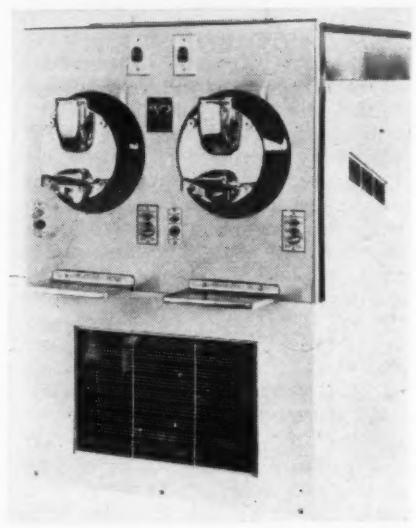
The model is of the same width and depth as the standard 1-130, and possesses all the features of this freezer in addition to the batch-feeding feature.

This latter consists of two 4-gal. stainless steel refrigerated mix holding tanks placed in the top of the freezer and a magnetic solenoid valve for releasing a fresh supply of mix into the rear of the cylinder.

When the cylinder becomes empty the operator twists the hand switch above the cylinder and continues on with other duties. The sanitary solenoid valve permits a measured batch of mix to enter the cylinder, thus preventing over-charging of the cylinder. The mix tanks are removable without tools for cleaning.

The chief advantage of this batch-feeding model is that manual filling during busy periods is eliminated.

In addition, this feature also makes it unnecessary for the cylinder to ever run short because the operator was too busy with customers and other orders to refill it at once.



Information Center

For *more information* on What's New products, current literature and catalogs available, equipment advertised in AIR CONDITIONING & REFRIGERATION NEWS use Key Numbers where designated or specify products advertised and we'll see that you receive this information promptly.

What's New or Current Literature Available

Key No. ..... Key No. .....
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Products Advertised
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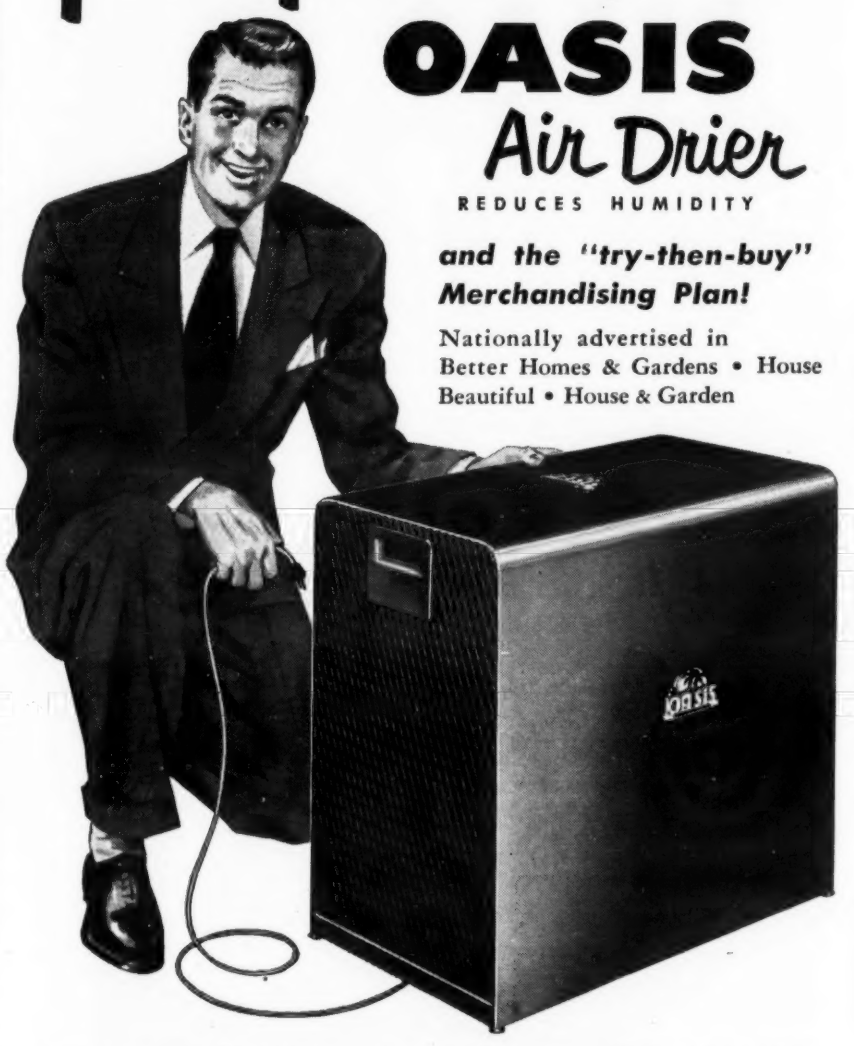

Yes, it's true! Dealers convert 9 out of 10 demonstrations into sales of the new Oasis Air Drier! Here's why—

1. ***National consumer advertising*** in the popular home magazines of a sensational free home demonstration offer.
2. ***Dealer promotions*** that tie *you* into the picture—displays, window posters, co-operative newspaper campaigns.
3. ***A "natural"*** — free home demonstration that provides an amazing 3-gallon *pailful of proof* that Oasis will remove up to 3 gallons of water from the air every day!

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No wonder Oasis dealers sold all they could get in 1950! Look at what this Air Drier will do: End damp basement odor, mold, mildew, rusting, dripping pipes, sweating walls. Makes basement living a pleasure, for laundering, cooking, playing. Protects books, furniture, rugs, tools, clothes, etc. Uses no chemicals; plugs into any A.C. outlet. *Write today for money-making facts,* and the name of your distributor. *The EBCO Manufacturing Co., 404 W. Town St., Columbus 8, O.*

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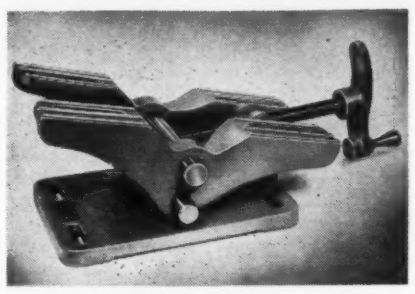
What's New (Cont.)



Tilting Motor Base Can Be Used with 1-Hp. Motor

—KEY NO. A-525—

CHICAGO—A lightweight, adjustable, tilting motor base for use with fractional horsepower motors up to 1 hp., has been introduced by the Lovejoy Flexible Coupling Co. here.

The base is adjustable in width and length to accommodate all sizes and types of fractional horsepower motors, the company said.

In addition to use with variable speed pulleys, the base also acts as a belt tightener and can be used for belt changing on cone step pulleys.

Speed changes can be made while the machine is in operation. The base constantly maintains the correct belt tension and alignment, which are controlled by a handle screw adjustment.

The Lovejoy tilting base is 5½ in. by 7 in. Shipping weight is 10 lbs. Price has been set at $6.

Parco Cutter Can Handle 20 Potatoes Per Minute

—KEY NO. A-527—

SYRACUSE, N. Y.—A potato cutter that forces the washed and peeled potato through steel cutting blades by hydraulic pressure has been introduced to the restaurant field by the Parco Mfg. Co. here.

The potato cutter is being marketed as a companion item to the Parco potato peeler, introduced last year.

A flip of the finger releases water pressure that operated the cutter, according to the company. As many as 20 potatoes can be cut in one minute, it claims.

The machine is placed on a sink stand or table, hooked up to the cold water faucet, and is ready to operate.

Both the cutter and peeler are portable and designed for use in smaller installations.

The peeler will wash and peel up to 20 lbs. of potatoes in a single bath and in not more than two minutes total running time.

Potatoes go in through the top of the machine. A revolving bonded abrasive disc does the work as water washes out the sludge into a sink receptacle. No trapping or sewer connections are needed. A side chute empties the machine.

All working parts are out of reach and a completely sealed gear case and transmission does the work without oiling.

Ajax Introduces New Electric Icemaker Model

—KEY NO. A-528—

EVANSVILLE, Ind.—Ajax Corp. of America recently announced an additional Ajax Electric Iceman known as Model A5A-4, as a companion unit to the A5A-2 originally put out in 1949.

This new unit has over-all dimensions of height, 64 in.; width, 24½ in.; and front to back (at base) 34½ in.

It has the same type of freezing mechanism as the Model A5A-2. However, it has many refinements, among them being the additional larger storage bin which hold 150 lbs. of ice.

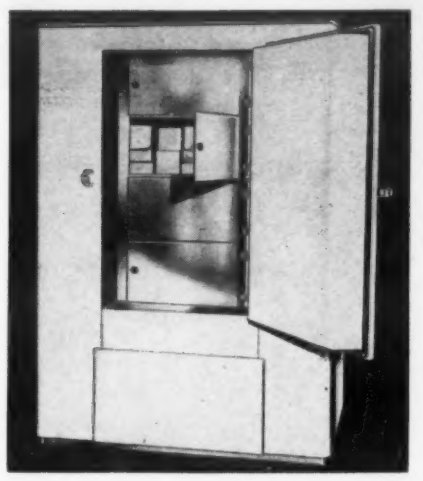
This storage bin is so designed as to allow the customer to use the oldest ice first, instead of having the oldest cubes lying in the bottom of the bin where they are not readily accessible.

The unit also has a new type mechanical storage bin control which simplifies service and maintenance. The ice can be easily removed through a counterbalanced door which puts the ice supply at waist height.

The Ajax Electric Iceman has been built by Servel for Ajax since 1949. The Iceman is powered with a Servel Supermetic compressor which carries a five-year warranty and the balance of the machine carries the standard one-year warranty against defective workmanship and inferior material.

Ajax Electric Iceman, Model A5A-4.

The cabinet of the A5A-4 carries a blue-grey Hammerloid finish.



IPC Starts Production On All-Aluminum Freezer

—KEY NO. A-529—

LOS ANGELES—Production on a new all-aluminum interior and exterior upright freezer has been started by the refrigeration division of International Products Corp. here.

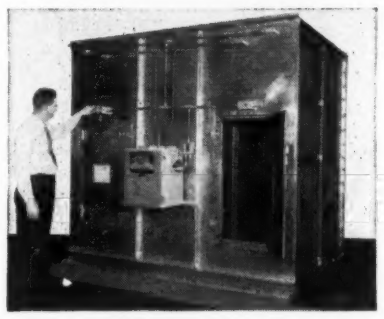
For its initial production run, the company will manufacture only one size, an 18-cu. ft. unit, Model BB18.

This model is available both in polished aluminum and in infrared white baked enamel finish. The freezer is made of heavy gauge corrosion resistant aluminum.

Each freezer has four inner compartments with individual doors.

What is called "an entirely new principle of moisture sealing" plus an extra heavy fiberglass insulation reportedly allows the freezer to maintain -30°. All IPC freezers are powered by Servel condensing units.

Encased 'Precipitron' Resembles Plenum Chamber



—KEY NO. A-526—

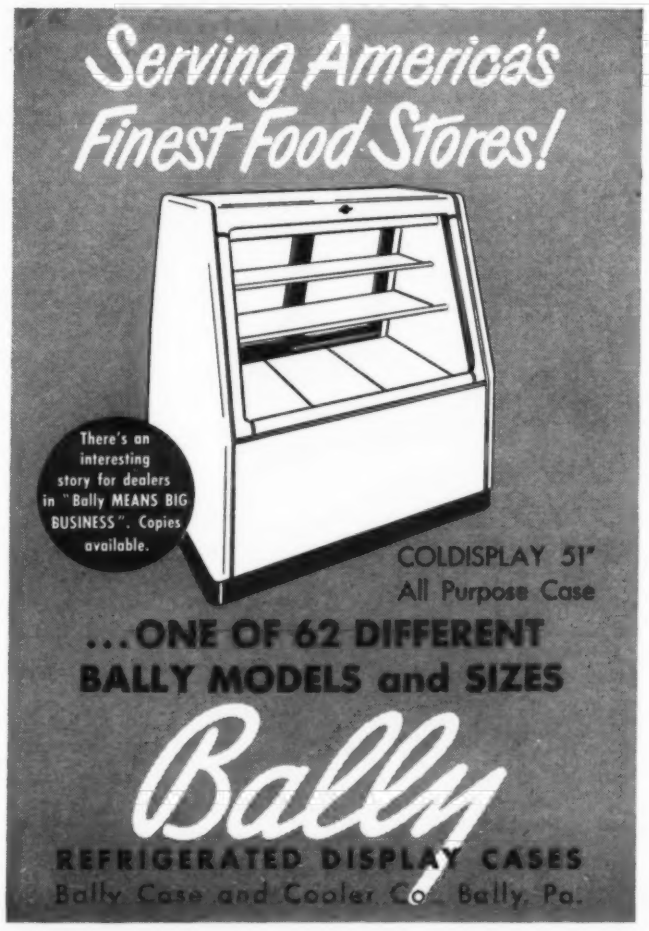
PITTSBURGH—An encased "Precipitron" electronic air cleaner that resembles a factory-fabricated section of air duct or plenum chamber 96-in. long with a built-in Precipitron, is now available from Westinghouse Electric Corp.

The complete air cleaning package, the type PE encased Precipitron, is available in air cleaning capacities ranging from 8,330 c.f.m. at 90% efficiency to 44,000 c.f.m. at 85% efficiency. A 90% efficiency results when the air velocity is 333 f.p.m. When the velocity is increased to 400 f.p.m. (up 20%) the efficiency drops to 85%.

The over-all cross-sectional dimensions of the PE units range from 5 ft. 4¾ in. high by 5 ft. 2½ in. wide for the 8,330 c.f.m. unit to 10 ft. 4¾ in. high by 11 ft. 1¾ in. wide for the 44,000 c.f.m. unit. All are 8 ft. long. Approximate net weight in pounds is from 1,970 for the smallest unit to 4,800 for the largest. Add 15% for shipping weight.

The PE units are shipped disassembled because of size and weight. Standard unit includes: the enclosure base, top, and side assemblies; partitions for supporting the dust collector cells and ionizers; intake air baffles; mounted door interlock switches; power pack hangers; and, high-voltage cable. Erected units are complete in every detail with sealed access doors, ample servicing room, and punched flanges for air duct connection.

The unit is available with access doors on the right or left hand side. Air baffle panels, dust collector cells, and ionizer assembly are of aluminum. The power pack is the electronic center that provides the high d-c energizing voltages for the ionizer and dust collector cell; it operates on 115-volt, single phase, 50 or 60-cycle power supply, and consumes a maximum of 350 watts when fully loaded. Access door interlock switches de-energize ionizer and dust collector cells when door is opened.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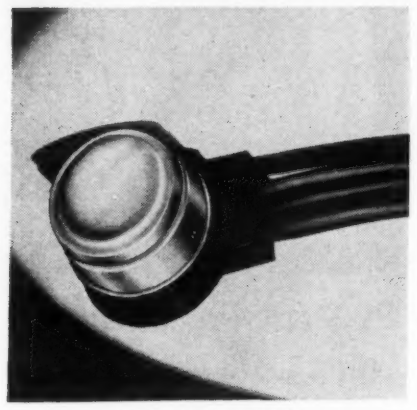
What's New (Cont.)

Spencer Has New Hermetically Sealed Thermostat



——KEY NO. A-5210——

ATTLEBORO, Mass. — Spencer Thermostat division, Metals & Controls Corp. has announced a new hermetically sealed thermostat designated as C4391.

A small, snap-action, disc-type unit, the thermostat has the terminals brought out through glass seals with rubber bonded over the terminals and to the rubber covered leads so as to be completely weatherproof and waterproof.

For extremes of temperature, both high and low, silicone rubber can be used in the molding as well as on the leads.

The problem of transmitting the temperature to be controlled to the disc thermal element within the hermetic enclosure has been solved by mounting the disc in the bottom of the metal enclosure. There it closely follows the temperature of any surface on which the thermostat is mounted or of air or liquids to which the bottom of the thermostat is exposed.

The disc-type snap-action gives a positive switch action which withstands vibration, shock, and motion. Designed originally for electric refrigerator automatic defrost control where it mounts directly on the refrigerator evaporator, the maker expects these thermostats to have many uses in both military and civilian equipment.

The switch action may be either single throw or double throw, single pole.

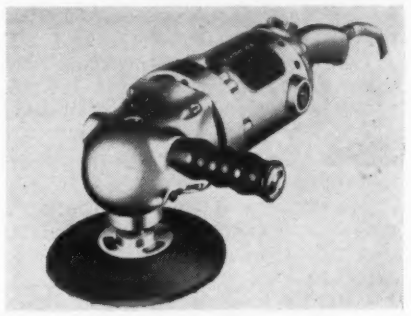
Contacts are protected from all contaminants by the hermetic enclosure and an atmosphere of helium or other inert gas can be sealed in when desired.

Electrical rating is 10 amperes, 30 volts d.c. and 125 volts a.c., 8 amperes 250 volts a.c.

Temperature settings are factory pre-set to the temperatures desired and are not thereafter adjustable. Differentials between opening and closing temperatures may be anything from 15° F. up.

When terminals will not be subject to grounding or short circuiting by moisture, the molding over the terminals can be omitted.

Various arrangements for mounting can be provided, according to Spencer.



Cummins Portable Disc Sander Comes In 2 Models

——KEY NO. A-5211——

CHICAGO — Two models of portable disc sander for use in repair and body shops, welding shops, metal fabricating plants, and wood-working shops, have been announced by Cummins Portable Tools, in its newly developed "Power Tools for Industry" line.

Model 460 is a heavy duty sander with 7-in. backing pad; 18 in. in length over-all, not including pad, and weighing 14 lbs.

Model 465 is a standard duty sander with 9-in. backing pad; measuring 18 in. without pad.

Specifications include the following: cast aluminum frame—light, compact; ¾-hp. universal type motor, a.c. or d.c., 115 volts standard, 220 volts special; precision-cut gears, heat treated and polished; sealed precision ball bearings; no-load speed 4,200 r.p.m.; switch totally enclosed, double pole toggle type; spindle diameter ⅝-in., 11 thread—gear locking pin for quick disc change—detachable handle for right or left side mounting; and 7-ft. cord.

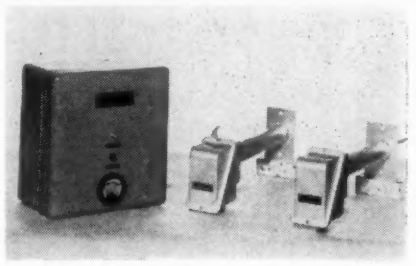
Electronic Safeguard Cuts Off Fuel In Case of Failure

——KEY NO. A-5212——

SCHENECTADY, N. Y. — A new electronic combustion safeguard system for commercial oil burners, which provides immediate cut-off of fuel in case of failure, has been announced by General Electric's Control Divisions.

Listed by Underwriters' Laboratories, Inc., and approved by Factory Mutual Laboratories, the coordinated equipment includes a switch-amplifier-contactor unit, phototube holder, in addition to electrode holder.

According to G-E engineers, the system assures positive protection



against combustion failure because (1) if the gas pilot does not ignite, the oil valve cannot open, and (2) if the oil flame does not ignite, the supply of fuel is cut off. After the cut-off, the motor continues to operate for 30 seconds to purge the nozzle or cup of unburned fuel to prevent carbonizing and reduce field servicing. The system is then locked against further operation until manually reset.

An oil temperature thermostat can be used with the circuit in this control to assure satisfactory fuel oil temperature before the starting cycle begins.

Upon resumption of service following a power failure, low water cut-off, or limit control operation during the starting cycle, the oil valve cannot open until the program switch recycles.

When continued operation of the burner is prevented by ignition failure, a positive lock-out mechanism is actuated and a light on the cabinet cover indicates that the equipment has gone to lock-out. Operation cannot then be resumed until the reset button is pushed.

A self-checking circuit prevents starting of the equipment unless the photoelectric detector, pilot protector, and electrode are in proper operating condition. For inspection and test, all components of the system can be removed easily from the front of the panel without disturbing any of incoming or outgoing connections.

The motor circuit is controlled directly by the built-in contactor for motor ratings up to and including ½-hp., 110/120 volts, single phase. For larger motors and for multiphase operation, a complete line of magnetic switches is available for use in conjunction with the master control unit.

Silver Solder Designed For Food Industry

——KEY NO. A-5213——

WHITE PLAINS, N. Y.—A new silver solder characterized by excellent corrosion resistance and an unusually narrow plastic range has just been announced by Bent Laune, president, All-State Welding Alloys Co., Inc. here.

This alloy was developed especially for application in the food industry. It is recommended for all kinds of food-handling equipment. Being cadmium-free and cadmium being one of the most critical of the metals, the new alloy will be more readily available than silver solders containing cadmium, Laune said.

The new alloy is identified as All-State No. 155 premium silver brazing rod.

It is 55% silver and has a low working temperature of 1,155° F. It develops a tensile strength of 50,000 p.s.i.

No. 155 is for torch or furnace application with No. 100 or 200 Brazaloy flux to copper and copper-bearing alloys and with No. 100 Brazaloy flux to ferrous alloys.

The new alloy is available in wire, strip, and rings and may be obtained through any All-State Welding distributor.

USE THE COUPON!

For "easy-to-get" product information . . . use coupon in the "Information Center" form.

Your orders have asked us to manufacture even more valves and fittings than we have in the past—and we're doing all we can to keep this flow of production continuing to your doorstep. As long as materials last, we'll continue to fill your orders. We somehow feel that the high quality that we maintain, no matter how scarce raw materials become, has prompted you to keep asking for Superior products. And you can be assured that this same high quality and perfect engineering will be built into every valve and fitting we make—even if you must bear with us on occasional delays in delivery dates. Although we're manufacturing at top speed right now, we are doing our best to produce even more for you.

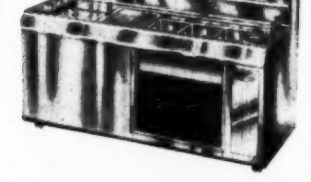
Remember to specify Superior when you see your wholesaler

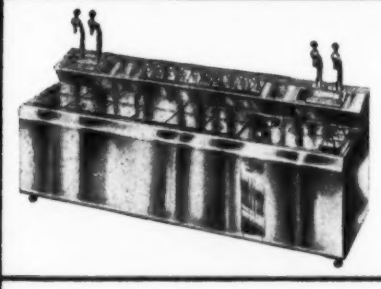
Superior *valve and fittings co.*

Pittsburgh 26, Pa.

Everfrost

Every day, in every part of the world, more and more fountain dealers are turning to Everfrost for profit-making, easy to sell fountain equipment. There is just ONE reason — with Everfrost you can offer your customers more for their fountain dollar.





The Everfrost line includes a complete range (14 models) of self-contained fountains and luncheonette equipment. With Everfrost you can supply exactly the right unit for every type of installation.

These outstanding features, found on all Everfrost fountains, will make more sales, more profit for you:

Deep drawn sinks
Simplified plumbing
No messy water bath
All-dry refrigeration
Everfrost Safety Pump
All Stainless Steel Interior
Low Installation Cost
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Investigate the Everfrost line today— write for the complete catalog.

ANDERSON & WAGNER INC.

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ABOVE: Conditioned air flows into Marty's Sandwich Shop through this four-way louver in inside wall. Air control unit is back of louver.

RIGHT: Triangular sign conceals weather louvers in front wall of shop. Nearly 100% outside air is brought in through louvers to unit.

Over-Entrance Unit Solves Space Problem Profitably for Air Conditioning Contractor

MADISON, Wis.—When the customer tells practically every air conditioning contractor in town that he wants his restaurant air conditioned without losing any floor space and expects to pay so much for it (not enough to provide a normal profit naturally), can you satisfy him or do you send him to a competitor?

Don McNearney of Refrigeration Equipment Co. here was faced with just that problem some time back. He accepted the challenge, and, together with the company's engineer, came up with a solution that not only satisfied the customer but brought him a reasonable profit as well.

The customer was Marty Westermoe, the young, energetic proprietor of three Sandwich Shops here, who is full of ideas about how his places of business should be operated.

Westermoe has his largest shop located on busy University Ave., right across the street from the Wisconsin State University hospital, eighth largest in the United States. It is this shop that he wanted air conditioned.

The shop consists of a dining room 17 by 48 ft. seating approximately 68 persons. Most of the direct service or fry cooking is done in this room in view of the customers. Behind it is a kitchen 17 by 24 ft. that accommodates heavy duty preparation and cooking equipment supplying all three shops.

The kitchen is equipped with a ceiling exhaust fan, a centrifugal unit of approximately 3,500 c.f.m. A latticed top opening in the partition between the two rooms draws air into the kitchen from the front section. That was the setup.

"Every contractor submitted a proposal, mostly direct expansion, recirculative systems, either ceiling units with remote compressors or packaged units, basement located and ducted," McNearney relates.

"All proposals were at too low a price to give anyone a profit.

"Our engineer and myself went into a huddle to decide if we could do the job in a satisfactory practical way, at a cost that would allow a reasonable profit, or whether we should tell Mr. Westermoe to buy from a competitor.

"Here is what we came up with—and sold at a profit. It works perfectly, and our customer recommends it to everyone."

Over the front entrance of the sandwich shop and resting on the entrance framing, McNearney put an air control package unit including filters, 2,700 c.f.m. centrifugal fan, a 5-ton water coil using city water at 55° F., and a 3-ton direct expansion nose type coil.

Outside air, almost 100% is taken in through weather louvers in the front wall. These louvers are hidden from street view by the triangular marquee-like sign extending out over the sidewalk. The air is passed through the cooling coils and into the interior space through a four-way louver in the inside wall.

A slight amount of re-circulated air is taken above the window at the left of the entrance to catch an otherwise dead spot caused by a canopy over the booths.

Air passes through the 55° F. water coil (we call it a timpering coil, McNearney says, because customers like that word better than water coil) and then through the 35° F. direct expansion coil.

Water passes from the coil to the remotely located 3-hp. Carrier condensing unit and is controlled by a high side, pressure activated water valve at the compressor.

In this way we use only what water the compressor needs, McNearney explained, and still the water coil is always full and all surface is effective. If the compressor needs it, the coil can utilize extra water, thus providing a normal balance, he declared.

Controls are manual, but a room thermostat is provided to stop the compressor, and thereby the water, at a minimum desired temperature. A set differential allows the compressor to start again when necessary.

The fan can run independently of everything else and is so used considerably on cool evenings when only air is needed.

A hand valve by-pass is provided in the water line so that the water coil can be operated without the compressor. Properly handled, McNearney said, these are all economical operating factors.

"We throw our air high and to both walls," he asserted. "We do not have drafts at customer height. Our air is fresh, clean, cool, and reasonably dry for this climate.

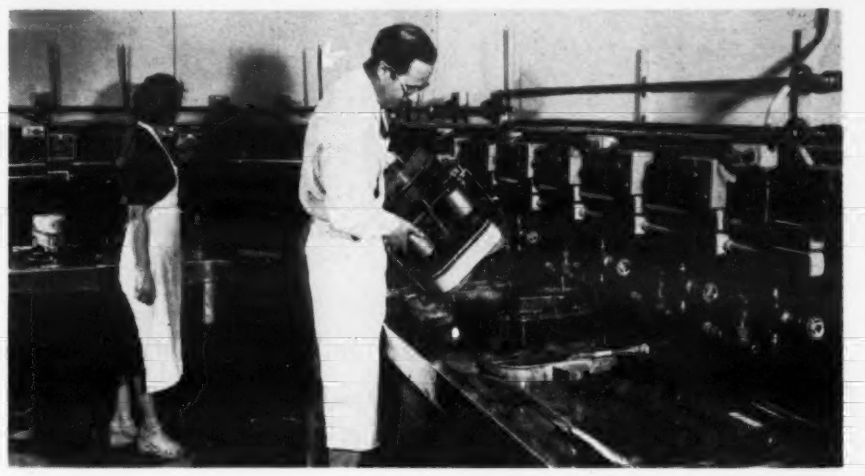
"The kitchen exhaust is supplied from the front room by this incoming air and we have none of the kitchen odors or high heat in the front room."

McNearney said that the system is delivering about eight tons of cooling capacity at a lower original cost and operating cost per ton than any other system he could have fitted into the job.

"We know it can be criticized," he admitted, "but look back at the original problems and the customer's demands. We believe we gave him everything he wanted, including profitable results. For us, it helps sell other installations."

Newton Given Trion Post

McKEES ROCKS, Pa. — John M. Newton has been appointed manager of commercial and industrial sales in the Pittsburgh district sales office of Trion, Inc. The announcement was made by John W. Frazier, general sales manager of Trion, at a recent meeting of the company's representatives.



Color processing of oil well logs in air conditioned color-duplicating laboratory.

Packaged Air Conditioner Eliminates Need for Refrigeration System In Film Processing Plant

MIAMI, Okla. — How a packaged air conditioning unit did away with the need for a special refrigeration system used in the processing of color films was described recently by Dan Hensley of Dan Hensley Sales & Service here.

Hensley, who is the local distributor for Typhoon air conditioning equipment, installed a 5-ton packaged air conditioner in the Oil Well Log Processing plant of Color Research, Inc. at Midland, Tex.

The unit was mainly intended for comfort air conditioning and was equipped with a hot water coil connected to a Typhoon gas-fired boiler to do a year-round job.

The unit was recessed in a partition wall of the chemical laboratory, using ducts for distribution of air to offices and mailing department. Air is returned to the conditioner through light traps and louvers in the doors.

A two-ton refrigeration unit had been installed in the laboratory to cool the chemicals and water used in washing films and to maintain them within a 2° F. differential.

But, it was found, the air conditioner kept the air so near the temperature of the water that the chemicals and the water could not absorb any heat from the air. This made it unnecessary to operate the refrigeration unit.

Perfect color reproduction has been the result.

don't sell air conditioning that does

HALF a job

Available in sizes from 1½ to 20 tons

Cooling isn't enough! An air conditioner to be effective must also de-humidify. If the unit you sell isn't equipped to do *both*, you'll hear about it in endless complaints and service calls. But it can't happen with Typhoon! Excess moisture is automatically "wrung out" as the atmosphere is cooled. Typhoon units need no special "humidity control" feature. The oversize, sloping coils deliver peak efficiency under the most trying conditions. It's the key to hot weather comfort that will keep you and your customers the best of friends.

Write us for the finest dealer setup in the business.

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TYPHOON AIR CONDITIONING CO., INC.

794 UNION STREET, BROOKLYN 15, N. Y.

TO CHECK RELATIVE HUMIDITY REMEMBER

Bendix Friez MAKES the RIGHT INSTRUMENT at the RIGHT PRICE for EVERY JOB!

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Precision Humidity and Temperature Indicator
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Designed to determine wet and dry bulb temperature with laboratory accuracy—Motors supplied for use on 115 V., 50 cycles or 60 cycles.

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Pocket Sling Psychrometer
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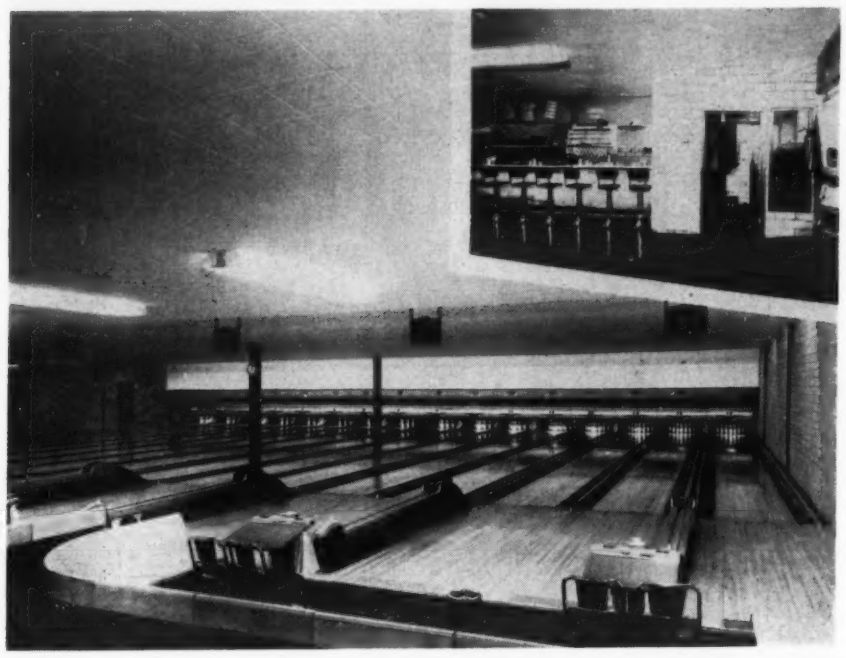

BOWLERS AT BONNIE LANES, Sandusky, Ohio, are cooled by two packaged air conditioners—one a 15-ton unit, the other of 3-ton capacity. Inset shows the 15-ton Typhoon unit in the storage room next to the lunch counter. Screened panel to right of door is for return air to the storage room.

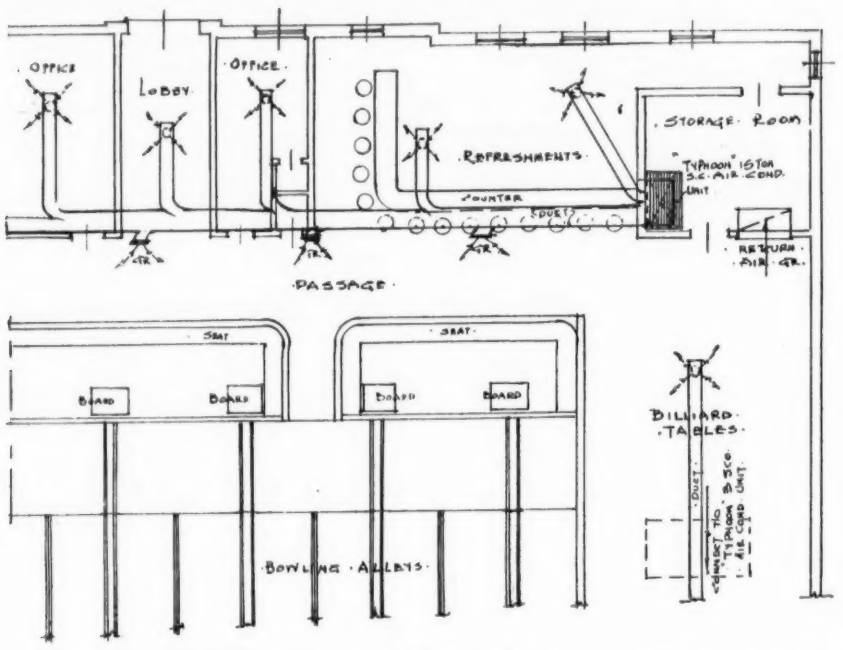

DIAGRAM OF DISTRIBUTION method from 15-ton unit. Last ceiling outlet from the 3-ton console in the billiard room is also shown.

Air Cooled Recreation

2 Packaged Units Handle Bowling Alley Billiard Room, Offices, and Lunch Area

SANDUSKY, Ohio—Two packaged air conditioning units—one of 3-ton capacity and the other of 15 tons—were combined to cool the public areas and offices of the Bonnie Lanes bowling alley here.

Bell Refrigeration Corp. of Cleveland, headed by Art Farr, made the installation. All equipment is hidden or recessed.

A large billiard room running next to the alleys is air conditioned and heated by a 3-ton Typhoon console unit built in to the glazed block wall of the billiard room, with only the front panel showing.

Concealed ductwork from the unit supplies four diffusers in the ceiling. A heating coil in the console unit gives heat through the same ducts.

The bowling alleys, a lunch room, the lobby, and offices across the front of the building are air conditioned and heated by a 15-ton Typhoon unit equipped with a two-row heating coil. This unit is located in a storage room next to the lunch room.

A Typhoon oil-fired K Boiler using hot water is located in the boiler room along with the 3-ton console unit. Two circulating pumps divide heating into two primary zones.

One pump supplies the coils in the two air conditioners. The other pump supplies a wall convector in the pin boys' dressing room and two hot water unit heaters in the pin boys' pit behind the alleys. The two unit heaters are on a separate thermostat which operates unit heater fans.

Thus, there are actually four distinct zones for heating: one serving alleys, lunch room, lobby, and offices; another serving the billiard room; and the other two handling the pin boys' dressing room and pit.

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Dallas Skyscraper To Be Cooled In Novel Construction Job

DALLAS — A novel construction project designed to triple the size of a large office building by erecting a new 17-story unit alongside and on top of existing building units—with the entire structure completely air conditioned—is now under way here and has been scheduled for completion early in 1952.

The new addition, to be called Corrigan Tower, adjoins and will become part of the existing Tower Petroleum Building.

It is being constructed around and over a theater connected to the existing building, with the theater scheduled to be out of operation for less than 90 days. The theater will be an integrated part of the architectural scheme of the new unit.

The Corrigan Tower addition will increase total rental facilities by about 200,000 sq. ft., and like the modern original structure will feature air conditioning.

Contracts have been signed for installation of Carrier Corp.'s conduit Weathermaster system similar to the installation in the United Nations Secretariat building and many other recent skyscrapers.

Another Carrier centrifugal refrigeration machine to provide chilled water for air conditioning will be added to the two already in operation in the existing building.

A total of 590 Weathermaster room units mounted under the windows will air condition all exterior offices in the Corrigan Tower portion. This includes offices along an air shaft which opens toward the street and separates the old and new structures for about three quarters of their depth from front to rear.

The new Carrier centrifugal is a 600-hp. machine with a refrigeration capacity of 600 tons. One of the two previous centrifugals has been in operation in the Tower Petroleum Building since 1939.

Wyatt C. Hedrick is architect and consulting engineer for the new project, and J. W. Bateson Co., Inc. is general contractor. The air conditioning and refrigeration contract was placed through C. Wallace Plumbing Co., Dallas. The building owner is Corrigan Properties, Inc., headed by Leo F. Corrigan, president.

Automatic Firing Names 2 New Distributors

ST. LOUIS — Automatic Firing Corp. here has announced the appointment of two new distributors.

In New Orleans, Acme Refrigeration Supplies, Inc., Harry Dawson president, has been appointed distributor of the Cool-A-Matic packaged air conditioners, Cool-A-Matic room coolers, and Fridg-A-Fire automatic heating and cooling unit.

In Dallas, Jimmie Hill Air Conditioning Co. has been appointed distributor of the Cool-A-Matic packaged air conditioner and Fridg-A-Fire units.

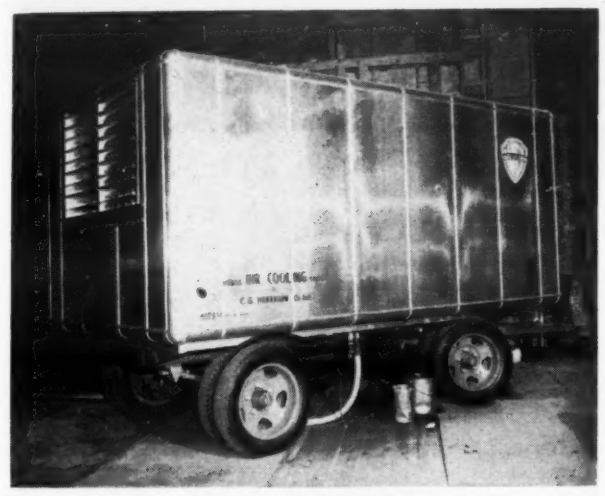
Strawbridge & Clothier Branch To Be Air Cooled

PHILADELPHIA — Air conditioning throughout will be one of the features of a new branch to be opened in Wilmington, Del. early next year by Strawbridge & Clothier, local department store.

The Wilmington unit will be the third and largest of the store's branches, according to Dwight G. Perkins, president. It will be the biggest of some 48 stores of all types comprising a huge new $20,000,000 shopping center now being constructed by Metropolitan Merchandise Mart's, Inc.

In addition to air conditioning, some other features of the department store branch will be parking space for 3,000 cars, tea room facilities, an auditorium, a medical room for emergency aid, and lounge and cafeteria facilities for employes.

Strawbridge & Clothier opened a store in Ardmore in 1930, then augmented it with a separate home appliance store and a men's store. A year later, another branch was opened in Jenkintown. That, too, has been augmented by a separate home appliance store.



C. G. Hokanson's mobile air conditioning unit came to the rescue of workers at Lockheed Aircraft. Fumes from plastic sealing compound affected them as they worked in small quarters in the wings. A canvas duct from the truck to the wings carried controlled air enabling men to keep on the job without taking time to go outside for fresh air.

Mobile Air Conditioning Unit Keeps Production Rolling at Lockheed

LOS ANGELES—C. G. Hokanson's of Los Angeles has seen its Mobile Air Conditioning Units do many jobs, from air conditioning movie sound stages to big auditoriums. But none have as much satisfaction as the recent use of a Mobile Unit in the present re-armament program.

Lockheed Aircraft Corp. of Burbank had the experimental job of sealing the wing gas tanks on some of the big B-36 bombers with a new sealing compound. Air conditioning the wings was a necessity from a technical and human standpoint. The sealing compound was plastic material which had to cool properly to seal; the fumes from the material could adversely affect the workers in close quarters if air conditioning was not supplied.

After trying and discarding several methods a call was sent to rent one of Hokanson's mobile units. The unit was brought out and parked near the plane.

A canvas duct was made up and run from the unit to the wing tank opening, according to the company.

Controls on the unit were adjusted and various temperatures tried. A little experimenting showed that if the air leaving the unit was 35° F. the result in the wing would be just right.

The sealing compound dried correctly, ample ventilation was provided for the mechanics working in the wing so they did not have to stop periodically and crawl out for fresh air.

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Servicing Hermetics In the Field

This is another in the new series of articles written to show the average serviceman how to service hermetic units in the field. Even those who have been working on hermetics for some time will find basic and practical information in these articles that will prove extremely helpful.

* * *

How To Check the Compressor of Hermetic System

By Arne Perttola, Owner and Manager
Brighton Hermetic Service, Detroit

In checking a hermetic unit that won't run, the serviceman will find that by using an ammeter with a simple test cord he can quickly find the probable cause of the difficulty. However, he must know the starting and running terminals in the relay used on the unit.

The Delco relay designates the running terminal with the letter "M," and the starting terminal with the letter "S." On the G-E relay the terminal marked "3" is the running terminal, the one marked "1" is the starting terminal. Spencer uses the letter "M" for the running terminal, "P" for the starting terminal.

For convenience, these code markings are shown in the following table:

Make of Relay	Running Terminal	Starting Terminal
Delco	M	S
G-E	3	1
Spencer	M	P

SIMPLE TEST CORD

A test cord for checking hermetic units can be easily made with three alligator clips, a pushbutton switch, a 100-120 mfd. capacitor, a male plug, and some rubber-covered cord. Connect these together as shown in Fig. 9.

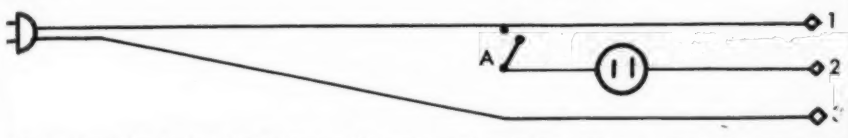

Fig. 9—Cord for testing hermetics can be made with alligator clips (1, 2, and 3), a capacitor of 100-120 mfd., a push-button switch (A), a male plug, and wire. Hook it up as shown here.

It would also be well for the serviceman who is working on hermetics to purchase or make a test instrument that includes an ammeter. An ammeter is extremely helpful in checking hermetic units. As indicated in Fig. 10, the ammeter should be wired in series with the 110-volt line.

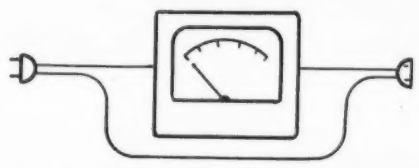

Fig. 10—An ammeter, which is extremely useful in checking hermetics, should be wired in series using male and female connections as shown.

Although the drawing shows the two terminals as being on the side of the ammeter, actually they're usually on the back. Attach a male plug at one end of the cord and a female plug at the other.

A more convenient arrangement would be to mount the ammeter in a box as shown in Fig. 11. The cord which is plugged into the power source goes in at the top of the box. At the bottom is a duplex wall receptacle into which the test cord can be plugged.

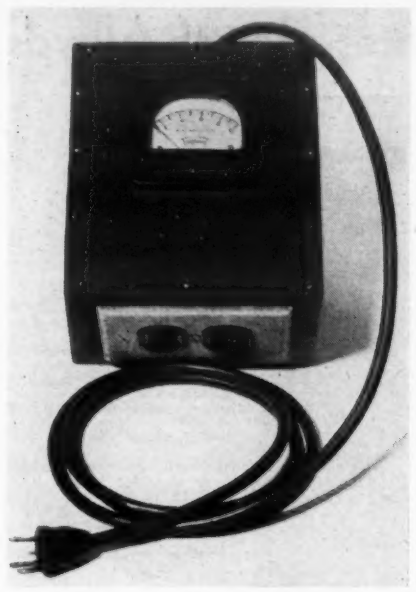

Fig. 11—For convenience an ammeter can be mounted in a box with electrical connections as shown in photo.

CHECKING THE COMPRESSOR

Disconnect the running winding wire at the relay and clip alligator clip No. 1 (see Fig. 9) to this wire. Disconnect the starting winding lead from the relay and fasten clip No. 2 to the wire.

The code given in the previous table will tell you which is the running wire and which is the starting wire.

Disconnect the third wire, which will be the common lead, and attach clip No. 3 to it.

Insert the plug of the test cord into a 110-volt outlet and press pushbutton "A." The unit should start.

If the test cord is plugged into the ammeter and the ammeter plugged into the power outlet, the ampere draw of the unit can be determined. After the unit has warmed up to normal operating temperature, the ammeter reading should be very close to the rating stamped on the data plate of the unit.

If the ampere draw is excessive (considerably over the rating stamped on the plate), it indicates an overload or a defective compressor. Possibilities of such an overload should be checked and corrected as previously explained. If the excessive ampere draw continues, the compressor must be defective and should be replaced or rebuilt.

Should the unit start without pressing pushbutton "A," then the starting winding is shorted to the running winding internally. It should be replaced or rebuilt.

(To Be Continued)

RSES Announces 5 Tube Bending Contest Winners

CHICAGO—Winners of five tube bending contests staged by as many chapters of the Refrigeration Service Engineers Society were announced here recently.

In a total time of 11 minutes, 32 seconds, Owen Dobbs beat all contestants to win first prize in the contest held in D.A.V. Hall, Flint, Mich., by the Motor City Chapter.

His time for completing this contest was termed "probably one of the lowest recorded for this event." Stu Fillingham came in second. Four others competed.

In the contest held at Cassapolis, Mich., by the Kalamazoo Chapter, Gerold Weeks came in first, followed by Ken Bennett. There were four other contestants. The contest was run in relays, and dinner was served prior to the meeting by the Women's Auxiliary.

The Furniture City Chapter's contest, conducted at the Oakman Cafe, Grand Rapids, Mich., saw Bill Clark finish first to win over five other contestants. Elwood Fry took second place.

Glenn Ormsby, Michigan State College maintenance man, won over four other contestants in the contest sponsored by the Wolverine Chapter at Lansing, Mich. The meeting was held in the Fire House at 2400 E. Michigan Ave., Lansing. Richard Kellogg, of Kellogg Refrigeration Service, was the runner-up.

The contest held by the District of Columbia Chapter was won by Paul D. Grabar, manager of the Refrigeration Department, Hot Shoppes Corp. He finished in 16 minutes to beat eight other contestants.

C. W. Phillips of the Refrigeration Test Section, National Bureau of Standards, came in second with a time of 21 minutes, 10 seconds. Third prize went to David Zentz, a Frigidaire dealer of Warrenton, Va., and fourth prize to Edward W. Gasser of Hot Shoppes Corp.

MISSING SOMETHING?

More and better useful information is yours for the asking. See "What's New" page.

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Mobile Plastic Molding Shop Demonstrates Use of Alkyds

Automatic Production of Molded Parts Possible

TOLEDO—A "plastic molding shop on wheels" has begun touring the nation to demonstrate the properties and use of alkyd plastic for molded parts in electrical equipment, the Plaskon division of Libbey-Owens-Ford Glass Co. here, sponsor of the project, announced recently.

The mobile unit is a converted van-type trailer and tractor that carries everything needed to operate a complete molding shop. Pulling into a prospect's plant or office area, the trailer is plugged in to the electrical supply and two presses are soon molding commercial parts for household fuses at a rate of 4,000 pieces per hour.

The trailer also has a lounge area where visitors can sit down and discuss the exhibit, see a display of successful uses of the alkyd material and its properties, and watch a dramatic, high-voltage test that demonstrates the alkyd plastic's electrical properties.

An engineer-demonstrator travels with the trailer to explain the molding operation and the plastic material to visitors. He points out that the molding properties of this plastic make self-contained, fully automatic production methods possible.

He demonstrates this by loading the hopper of a press, pushing a button to start the press, and then spending the rest of his time with the visitors. He returns to the press only to reload it. He notes that the new plastic can be molded about four times as fast as other materials of its type.

SHOWPIECE—Interior view of the mobile molding shop Plaskon is sending around the country to demonstrate the properties of its new alkyd plastics. In the foreground are the molding presses. In the background are the lounge and exhibit.

Plaskon, which produces the alkyd plastic, points out to plastic molders that the presses for alkyd plastic are less expensive to purchase than most models and cheaper to operate since they require less labor time, and less heat, pressure, and power to operate.

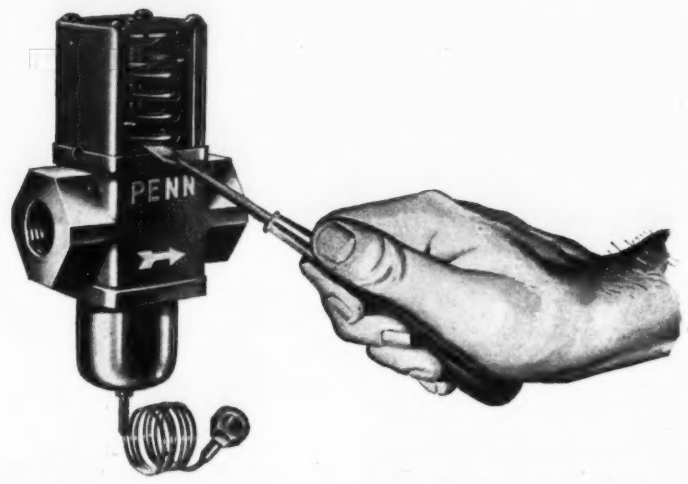
In addition, Plaskon says, the high rate of production not only reduces cost per unit but also allows use of smaller molds to attain the same rates of production previously possible only with much larger molds.

Collapses on Job, Dies

ALBANY, N. Y.—Charles A. Carr, 52, proprietor of the National Refrigerator Co., 346 S. Pearl St., died April 25 after he collapsed while making an installation.

SLANTS on Service

"Slants on Service" is a new "package" devised by the NEWS to meet the needs of its busy readers in the service and contracting business. These helpful hints and suggestions for improved service methods and shortcuts have been assembled in capsule form.



Manual Flushing Prolongs Life of Water Valves

Rust, corrosion, scale, and other impurities which can be normally expected to collect in a water line can interfere with the proper operation of a water valve used in conjunction with a water-cooled condenser. Particles may collect on the valve seat and prevent its closing tightly. Abrasive action of such particles will also greatly reduce the normal life of the valve and seat.

Manual flushing of the water valve will avoid or minimize such difficulties, points out Penn Electric Switch Co. As illustrated, inserting a screwdriver or similar tool under the main spring of the valve and prying it upward (away from the valve body) will flush out the valve.

The water valve should be flushed out on new installations before the system is started up. It is also advisable to flush out the valve whenever the system is serviced.

'Explosive' Nails Fasten Long Lines In Concrete Tunnel

Explosive nails driven into concrete by a powder charge help R. A. Haines, head of R. A. Haines Co., Denver, solve many "long line" refrigeration installation problems in Denver supermarkets.

Mammoth size of many of the new supermarkets has posed difficult problems, particularly in the use of extremely long lines to carry refrigerant from the basement compressor rooms to the open-top self-service equipment on the first floor.

For most such installations, Haines runs all of his lines down a central tunnel, built under the floor of the supermarket and lined with heavy concrete. To provide an effective support for the tubing, but one from which the lines can be readily removed when needed, Haines has resorted to a copper cradle arrangement, whereby two copper strips are "nailed" to the top of the concrete tunnel by means of the explosive nail units.

Nails are driven securely into the concrete with a single explosion and form a strong support. Over the two simple copper strips thus bracketed on the wall is laid a hard copper cradle unit, on which the refrigerant lines rest. They are this way held suspended away from contact with walls or any other surface, and yet the lines can be removed, by disconnecting either end, and merely pulling them out of the tunnel.

Under most circumstances, sufficient tunnelroom is left, however, that a mechanic can crawl easily along the length of the lines, for special repairs, or else, the top of the tunnel is so arranged that floor sections may be removed for access to the lines.

Bottled Gas Powers Refrigeration for Food Storage On Tow Boats Pushing Barges Down Ohio River

EVANSVILLE, Ind. — Smooth-working diesel fuel may power sturdy tow boats that ply long stretches of the Ohio River, but bottled gas powers one company's refrigeration equipment to keep perishable food fresh for the crews.

Usually, once a tow boat leaves any of the ports that dot the Ohio River, from its origin in Pittsburgh to the point in Illinois' Little Egypt where it joins the Mississippi, no stops are made, except to take on or leave off heavily-laden barges.

The Bedford-Nugent Sand and Gravel Co., which operates its own fleet of tow boats to push—tow boats don't pull—barges with strategic building materials between Tell City, Ind. and Paducah, Ky. out of its home port of Evansville, realized it had to find a way to preserve vital food supplies for the crew on these trips, and provide them with the best possible working conditions.

In many of the river towns, no auxiliary power supply is available to keep the refrigerators operating when the boats are in dock. If, for any reason, the craft was temporarily laid up, this could also cause a break in the refrigerator operation.

The company turned for the solution to Servel, Inc., one of its Evansville industrial neighbors.

As a result, nine Servel refrigerators, operating on bottled gas, are now installed in five Bedford-Nugent boats. Two of the boats are equipped with two Servels each. These are a sand dredge and the company's newest tow boat, the *J. W. Bedford*. Another sand dredge and a second diesel-powered tow boat each have one Servel. A third dredge has three refrigerators aboard.

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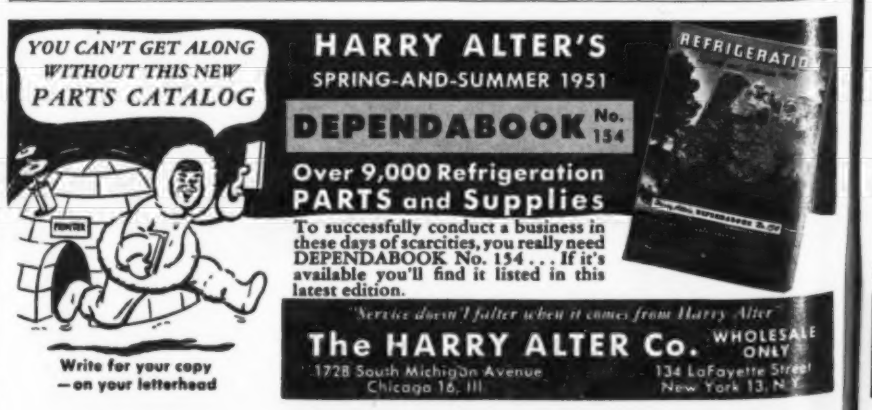
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Refrigeration Problems

and their Solution

by Paul Reed

For Service and Installation Engineers

Paul Reed

Insulation: Selection And Installation (1)

Before considering insulation itself, t might be well to define the term "insulation," and what it does; and to set up some basis for classifying materials as to whether they are insulations or not. In this discussion, we are of course referring to heat insulation and not electrical insulation.

If we were to say that insulation is any material that retards the flow of heat, we would be technically correct; but such a definition would be too broad. *Any* material retards the flow of heat to some extent; some more than others.

Nor can we confine the term "insulation" to any group or list of materials, for a material that under certain conditions may be a very good conductor of heat (a poor insulation), under other circumstances may be excellent insulation. Aluminum, for example, is normally a very good conductor of heat, but it may also be so used as to be an excellent insulation.

We must therefore set up some sort of dividing line between conductors and insulations; and this dividing line must be on the basis of how rapidly the material, under the condition that it is being used, conducts heat.

Moreover, we are chiefly, and for our present purpose, almost entirely, interested in the material as it may be used in the walls, floors, and ceilings of refrigerators of all kinds, and of rooms the temperatures within which will be less than 80° F., with a difference in temperature between the inside and outside of the refrigerators or rooms rarely greater than 150° F.

In comparing materials as to the rate at which heat passes through them, we must consider four factors.

BASIS OF RATE OF HEAT TRANSFER

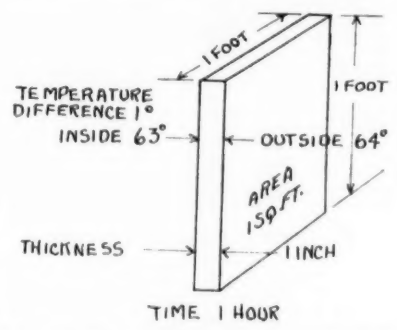
(1) The square feet of area of the material exposed to the temperature difference. The greater the area, the *greater* the amount of heat that passes through the material.

(2) The thickness of the material in inches. The greater the thickness the *less* the amount of heat that passes through the material.

(3) The temperature difference on the two sides of the insulation. The greater the temperature difference the *greater* the amount of heat that passes through the material.

(4) The time in hours. The longer the time, the *greater* the amount of heat flow through the material.

In making comparisons of the rates of heat transmission through various materials, the standard is 1 sq. ft. of the material, 1 in. thick, with a difference of 1° between the two sides of the material, for one hour. The amount of heat in B.t.u.'s passing through this 1 sq. ft. of the material, 1 in. thick, at a 1° temperature difference, for one hour, is called the "thermal conductivity" of the material. This is often termed the "k factor" of the material.



The basis of the "K" factor, the conductivity of one square foot, one in. thick, for one hour, with a one degree temperature difference.

For us to consider it as an insulation, a material should not have a "k factor" greater than about ½ B.t.u., and preferably the "k factor" should be about .30 B.t.u. or less, per sq ft., per in. thick, per degree F. temperature difference, per hour. Almost all materials commonly considered as insulation for refrigeration and air conditioning, have "k factors" between .20 and .40.

We are not considering whether a particular material is suitable for a specific use; the matter of suitability will be gone into later. Now, we are only considering whether, for refrigeration and air conditioning purposes, a material can rightfully be classed as an insulation.

HEAT LEAKAGE OF INSULATION

Since the "k factor" is based on *1* sq. ft. of surface of the insulating material, *1* in. thick, with a temperature difference of *1°*, for *one* hour, it is necessary, in calculating the total amount of heat passing through the walls of the refrigerator or room, to *multiply* the "k factor" by the total number of square feet of the walls then *multiply* this by the number of degrees difference in temperature on the two sides of the insulation; then *multiply* by the number of hours; and finally *divide* by the thickness of the insulation in inches. The final answer is called the "heat leakage" of the insulation.

There are other materials whose "k factors" are above .5 B.t.u. per sq. ft., per 1 in. in thickness, per °F. temperature difference, per hour, that are used in refrigerator or room walls. They have an insulating effect, and may have to be included in the calculation of how much total heat passes through all the walls, ceilings, and floors; but they are used as structural parts of the walls, and are not primarily the insulation of the walls.

These materials include steel exterior shells, steel interior liners, wood, paper, concrete, pitch, etc.

HEAT LEAKAGE OF COMPOSITE WALLS

If the walls of the refrigerator or room consist of but one kind of insulation, with a sheet of metal and paper, a coat of cement, or a thin sheet of wood, inside and outside, the insulating value of these covering materials is usually so small as to be disregarded, and the total heat leakage of the wall is taken as the heat leakage of the insulation only.

Some walls are built of two kinds of insulation with different "k factors." Some walls have heavy wood sheeting inside or outside or both. In such cases, it is often advisable to take the difference of "k factors" or thickness of the separate insulations into consideration or to include the insulating effect of the covering materials when calculating the total heat leakage of the wall. This is done by using the following formula:

$$\text{Total Heat leakage per hour} = \frac{\text{Temperature difference} \times \text{Total area}}{\frac{\text{Thickness of Insulation \#1}}{\text{its k factor}} + \frac{\text{Thickness of Insulation \#2}}{\text{its k factor}} + \frac{\text{Thickness of Insulation \#3}}{\text{its k factor}} + \text{etc.}}$$

The total heat leakage of the composite wall as calculated by this formula must then be multiplied by the number of hours. Usually this is 24 hours, but if there is a wide variation in the temperature difference between night and day, it may be advisable to calculate the day and night total heat leakages of the wall separately.

After the total heat leakage is thus calculated, to it should be added the service load, product load, ventilating load, latent load (condensation of moisture), sun load, and other miscellaneous loads such as lights or motors inside the refrigerator or room. For information on these loads, see chapters 18, 19, and 20 in Manual J-1.

(To Be Continued)

Heat-X-Changer Offices Move

BREWSTER, N. Y.—All sales and engineering activities of the Heat-X-Changer Co. were transferred to the main plant here from the New York City office effective May 1, Cecil Boling, president of the company has announced.

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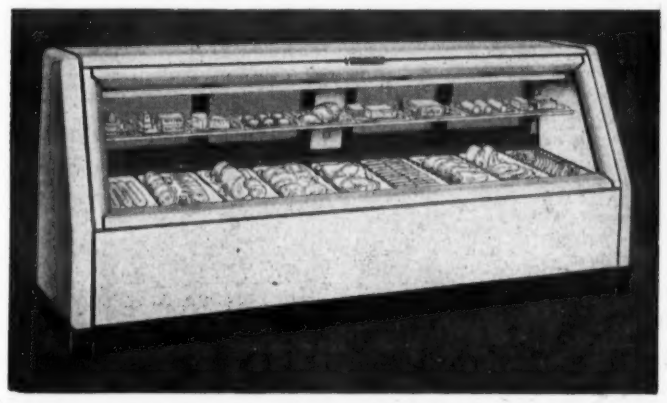

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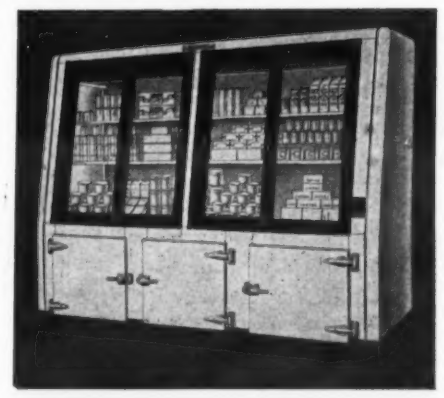

Pinnacle EQUIPMENT CORPORATION
FLEETWOOD, PENNSYLVANIA

Export Dept.: 39 Broadway, New York

'WE HAVE NO INTENTION OF LEAVING AIR CONDITIONING AND REFRIGERATION FIELD'—DRAYER-HANSON, INC.

Drayer-Hanson, Inc.
Box 2215 Terminal Annex
Los Angeles, Calif.

Editor:

In the March 19 issue of AIR CONDITIONING & REFRIGERATION NEWS, on page 32, you carried a news item regarding Drayer-Hanson converting its plant to defense work.

We appreciate your interest in our company and the fact that you carried this news item. While this article was of general interest to the refrigeration and air conditioning trade, it failed to give all the facts.

First of all, your article indicates that Drayer-Hanson is going out of the refrigeration and air conditioning business, when such is not the case. We are going stronger than we have for the past three years and our business is showing a rapid increase. Recognizing the difficulties which we have had, due to our financial problems, the NPA has granted us additional copper and aluminum allotments, over and above our 1950 usage, which has enabled us to increase our business substantially. Our efforts and our prime interest will always be with the air conditioning and refrigeration trade, and we fully intend to stay in that business.

You must remember that our factory covers 125,000 sq. ft. and it requires a considerable volume to operate a plant of that size at full productive capacity. Naturally, with the material limitations which now exist for our industry, it is necessary that we look for other work. Our order for drop tanks, which, incidentally, is with the Navy and not the Air Force, is one of the many contracts we expect to get. Still, the drop tanks, while a sizable contract, only take up a small portion of our capacity. These contracts are being taken with the thought in mind of contributing to the defense effort as well as keeping our plant busy until such time that we can have the copper, aluminum, and steel necessary to build refrigeration products.

We would appreciate another statement from your organization, because after all, you are recognized as the "news" of the industry, stating that we have no intention of leaving the air conditioning and refrigeration field. It will make it easier on the new representatives we have obtained during the past year and take some of the sting out of our competitors' remarks regarding the fact that Drayer-Hanson is leaving the air conditioning and refrigeration field for good.

A. L. HANSON,
Vice President.

AIR CONDITIONING CONTEST WINNER THRILLED

Victor H. Cox
Lafayette, Ind.

Editor:

Though a hard-bitten old refrigeration man, I was as thrilled at receiving the first place award in your contest, as a Purdue Co-ed attending her first Junior Prom.

Seriously, I am humbly grateful to the Judges for selecting my entry as I know that there were many fine entries from the many fine men in the industry.

Best wishes and thanks to the Judges and to the NEWS for making the contest possible.

VICTOR H. COX

PUBLICATION BELONGS IN CHRISTIAN HOMES

Atlanta, Ga.

Editor:

Your letter was forwarded to me at Tallahassee, Fla. where I am resting for a few days and will leave one day this week.

I want to stress the last paragraph of your letter. I have put my 3 children through college and the youngest (Katherine) will graduate this June at college. She and other teen-agers have read your Inside Dope and said: "It's a shame we youngsters did not know all this years ago. Every person should read it."

I personally think your publication is one of the best things that could be placed in a Christian home.

JULIAN R. DRAKE

FIRST PRIZE AWARD DOUBLY APPRECIATED BY WILDERMAN

Wilderman Refrigeration Co.
Seattle, Wash.

Editor:

Needless to say, I was more than pleased to receive your letter with the enclosed check for $100 as first prize in your recent contest for the most unusual applications of air conditioning equipment.

While the application we entered in your contest was unique according to our experience still we did not entertain the thought that it would overshadow all the other hundreds of entries you must have received. We note from the list of award winners enclosed with your letter that you had entries from a widely distributed number of entrants, which makes the award to us doubly appreciated.

Best regards to you and to your fine publication, which we always consider as the Bible of our industry.

J. WILDERMAN

HOW MANY 'HAM' RADIO OPERATORS ARE THERE?

Home Appliance Co.
Whiteville, N. C.

Editor:

Your "Dope" and editorials are always tops with me and a must in reading. I am too busy to drop a line in and let you know, as a rule, but your editorial on the Fromostat has me in stitches.

Being in the air conditioning business and a Ham (amateur)—here we go again—radio operator with a call of W4RJ as a hobby, I speak both languages rather fluently. Your editorial has set me to wondering how many other "Hams" we have in our business. Would it be possible to inquire editorially?

I have been in radio contact with one English refrigeration man and one Australian.

While I am in a writing mood, I would like to comment on Paul Reed's comments on danger from low voltage circuits in the same issue. Speaking from war work gained experience I would say that just plain old 110 is the most dangerous because so lightly regarded. As a matter of fact, we lost more men in a nearby shipyard from this voltage than all others combined.

They conducted some extensive investigations and came up with the answer that a low voltage shock causes the heart to fibrilate or quiver, and makes it much more difficult to get it to respond to artificial respiration. On the other hand, they found that a relatively high voltage shock makes the heart contract convulsively and then rest. Quickly applied treatment has a better chance of bringing these back.

Keep up the good work.

B. L. HINNANT

'NEWS' GETS READ AND RE-READ AT THERMODYNE

The "Thermodyne" Corp.
635 W. 51st St.
New York, N. Y.

Editor:

Many, many thanks for your letter and check, telling me of my good fortune in your recent AIR CONDITIONING & REFRIGERATION NEWS contest.

Our organization is the largest distributor of the Carrier equipment in the world, and you may be assured that your weekly publication is read and re-read from top management to the truck drivers.

Again we wish to convey our appreciation, and rest assured that your publication is considered tops in the industry by us.

H. F. HOLLIS,
Assistant Manager,
Packaged Unit Department

NEWS AND ADS HELP TELL INDUSTRY STORY

Chrysler Corp.
Airtemp Division
Dayton, Ohio

Editor:

Congratulations on a swell issue of the NEWS.

It is a fine example of coordination between news stories and advertising to help our industry get over the importance of our contributions in both war and peace times.

I liked the sticker which you attached for special purposes. It was a fine idea.

C. S. STACKPOLE,
Vice President & General Sales Mgr.

CAMPBELL, MALLY CORP. PUT IN PARTS DEPOT JOB

5051 Argyle
Dearborn, Mich.

Editor:

We wish to thank your organization for the fine articles published on our two installations.

Our only comments are that no credit was given to the installing contractor and the general contractor in the article concerning the Lincoln-Mercury Parts Depot on page 38 of your April 30 issue. The installing contractor was Mally Corp. and the general contractor was Campbell Construction.

If it is at all possible, would you please give them credit for the job in some future issue.

JOHN J. KRAMER

New Halstead & Mitchell Addition To Double Area

ZELIENOPLE, Pa. — An addition to the Halstead & Mitchell factory here that will more than double the floor area of the plant is now under construction, Byron Halstead, general manager, announced recently.

The addition is being built on the east side of the present plant and will add some 38,000 sq. ft. of floor space under roof. Cost of the project will be about $250,000.

Halstead indicated that after the new wing is completed, employment will be considerably increased and new manufacturing equipment will be added.

Navy Electronics Display At Navy Pier Planned For Prospective Producers

CHICAGO—A display of aviation electronics and communications equipment and related components will be shown at the Navy Pier here May 21-23 by the Navy's Bureau of Aeronautics and the Air Force for the benefit of management and subcontractors' technical representatives.

Companies capable of producing electronics equipment and desiring to attend may apply at the area Air Force Procurement field office. They should apply at least five days prior to the show.

A similar show was held in New York City's Grand Central Palace recently.

Dawson Represents Binks In California Area

CHICAGO—The Richard S. Dawson Co. of Los Angeles has been appointed as California representative for the Cooling Equipment Division of Binks Mfg. Co. here, it was announced recently.

The Dawson company will handle Binks' full line of natural and mechanical draft cooling towers, heat exchange coils, and industrial spray nozzles.

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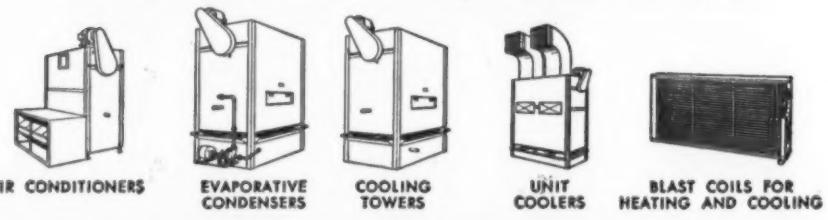

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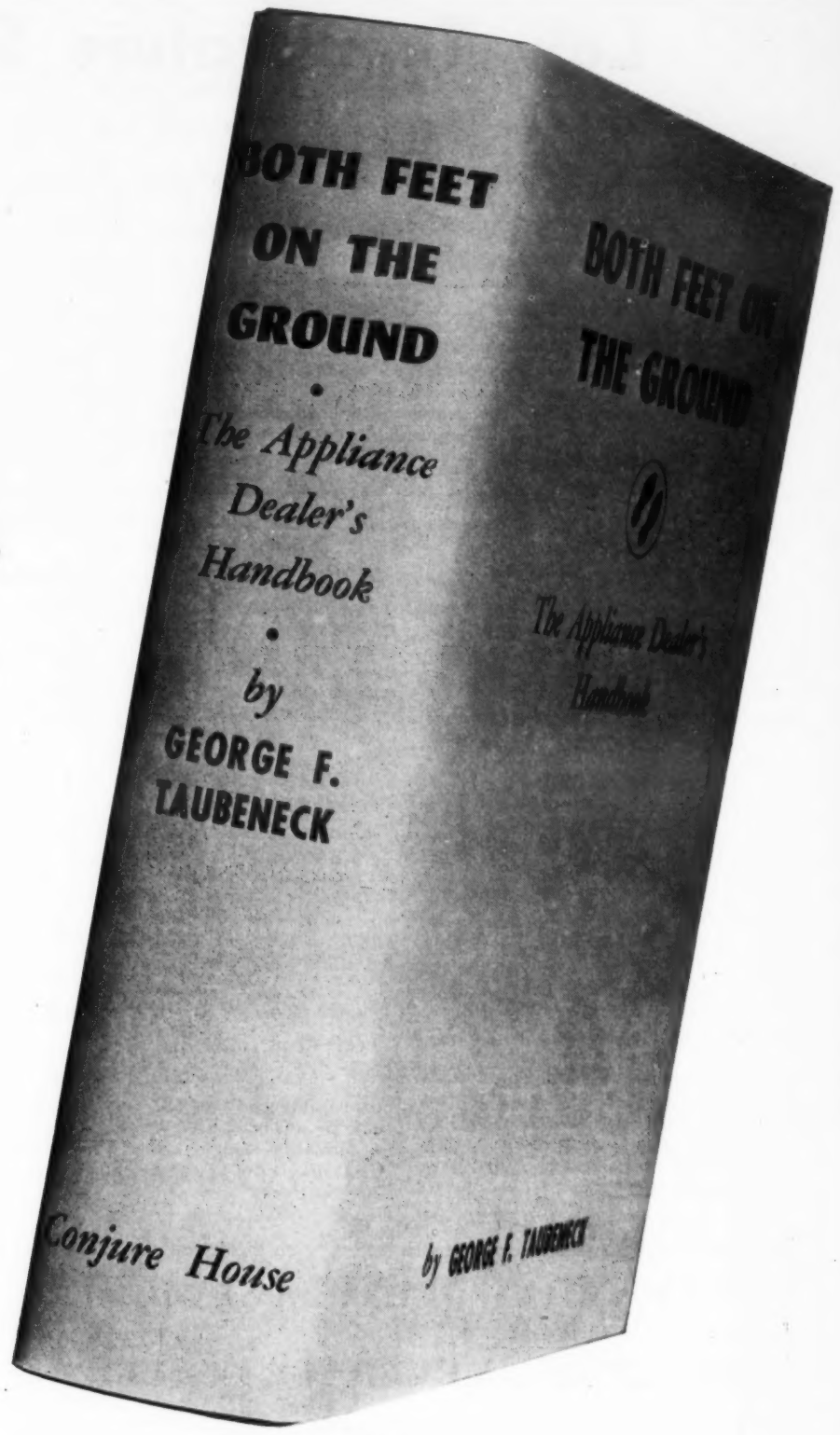

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No wonder "Both Feet On The Ground" is a complete guide book to the most profitable way to operate an appliance or specialty dealership! It is a weighted summary of the very best dollar-producing approaches to every dealer problem, right from selecting the franchise, to closing the books in black, at the end of the month. There isn't one aspect of running an appliance business that isn't treated in this Handbook. A convenient index makes it easy to answer any problem, large or small, with just a flick through the pages.

Anyone who hopes to become a better retailer can find, in this wonderful new book, basketsful of dollar-making ideas he can apply to his own business, in his own way.

Manufacturers and distributors, who rely on retail outlets for sales of your products, see an abundance of new ways to merchandise to your dealers, to create more demand for your particular refrigerators, ranges, washers, disposers, humidifiers, and freezers. See the business as retailers see it.

Send for a copy of this new book today. Use the purchase order form at the right and mail it immediately. This book is sold on a money-back guaranteed basis. Don't miss this opportunity to collect big dividends on a nominal investment. (If you prefer you can order a copy on approval. If not completely satisfied, return the book under no obligation.)

The publication of this book could not have been more timely if we ordered an exact date. Now that the President has declared a national emergency who knows what is liable to happen to the appliance dealer. If rationing and priorities are imposed, the service side of your business will boom, because of the need for repairs on equipment that would have otherwise been traded in or junked. This book has complete, reference information on how to properly and most efficiently run a service business.

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YOU KNOW THE AUTHOR . . .

George F. Taubeneck for his brilliant books on specialty selling, salesmanship, and sales management. "One Foot In The Door," "It's A Great Life," and "The Marshal's Baton" still sell copy after copy every week.

Now, George submits perhaps his most important work, "Both Feet On The Ground" for use and study by our Industry.

His 20 years as Editor and Publisher of AIR CONDITIONING & REFRIGERATION NEWS eminently qualify him for the job of compiling such a Handbook, and the results are beyond our fondest hopes. In his work as reporter, editor, ambassador to the Industry, and champion of the businessman, literally thousands of hours have gone into his interviews and travels throughout the country, and the world. The wisdom and knowledge he picked up along the way are reflected in every one of his books.

"Both Feet On The Ground" renders at a time when such service is perhaps more sorely needed than ever before, because of credit restrictions, unique guidance to all of America's appliance and specialty dealers and the manufacturers and wholesalers who supply them. Taubeneck's insight and grasp of the core of every problem in retailing, as learned by and from men in the business all their lives, provide counsel and assurance to all concerned. In months like these, when we don't know from one day to the next, whether we'll be in a shooting war or a cold war, whether there will be oversupply or undersupply, or whether there will be credit restrictions or no credit restrictions, it pays every man concerned with the appliance and specialty business to be prepared for any conditions, favorable or not.

"Both Feet On The Ground" offers a sane, sound, and sensible way to be prepared.

Air Conditioning & Refrigeration News
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Please send me ..... copies of the wonderful new book by George F. Taubeneck, "Both Feet On The Ground," at $5.95 per copy. My check for $..... is enclosed. (You may order this book on approval. If it does not completely satisfy, you may return it under no obligation.) ☐ Send on approval.

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Low Temperature Systems

Factors In the Design, Selection and Servicing of Such Equipment

5. How Test Chambers Aid Various Industries

This series of articles by Mr. Lopiccolo on low-temperature refrigeration covers the following ground:

Single, two, and three-stage refrigeration applied to low-temperature applications, with discussions of the principles involved in each type, and advantages and disadvantages of each type.

Service problems that are somewhat peculiar to these various types of systems.

Applications in which low-temperature refrigeration has a definite function. This covers many fields related to the defense effort.

This instalment, fifth in the series, describes some applications of test chambers and how they aid industry to solve costly and complicated production problems.

Material appearing in this series of articles has formed the basis for papers which Mr. Lopiccolo has presented before a number of American Society of Refrigerating Engineers section meetings.

By Thomas Lopiccolo, Vice President, Bowser Technical Refrigeration, Division of Bowser, Inc.

During the last 10 or 11 years of strictly Industrial Refrigeration in the low temperature field, there have been many hundreds of different applications for low temperature refrigeration and surely within the next period of time of even less than 10 years, we can expect to have many more different and varied applications for low temperature.

No matter how insignificant seems the industry, somewhere there can be applied this technique of low temperature refrigeration in conjunction with either testing, development, research, or industrial processing.

The first and most common application for low temperature is in the test chamber industry. This particular field involves the manufacture of test facilities of varying sizes of a compact nature, wherein can be produced environmental conditions such as are encountered anywhere in the earth. In fact, they are all-weather equipment. They simulate altitude, low and high temperatures, and low and high humidity.

The simulation of low temperatures in confined spaces in the laboratories permits a rapid testing of equipment to meet the same conditions as encountered in aircraft flight, particularly in combination with reduced atmospheric pressure in order to simulate true altitude conditions. Low temperature alone can also be employed for those components of equipment which are unaffected by altitude.

By the use of these test cabinets, it is possible to simulate actual environmental conditions which are anticipated and these tests can be conducted at the complete convenience and with all the facilities within the manufacturer's own plant.

World War II Demonstration Of Test Chamber Use

The best example of how this procedure saves time and money can best be demonstrated by the following example. During World War II, a manufacturer of radio transmitters and receivers for aircraft use received a contract to produce certain models of transmitters. Part of the acceptance and performance test, was to demonstrate that the equipment could operate satisfactorily in flight. In those years altitudes for test purposes ran in the order of 30,000 to 35,000 ft., and temperatures encountered at those altitudes ranged in the order of -40° to -50° F.

This particular manufacturer in order to comply with the terms of the contract had to rent hangar space at a neighboring airport; had to purchase a plane; and hire a pilot. They then had to purchase a truck to commute between the airport and the plant carrying and transporting the personnel and equipment to and from the airport for test flights and then returning to the plant to make the necessary modifications.

Such an operation for conducting actual flight tests depended to a large extent upon flying conditions, weather, road conditions, as well as the availability of all the personnel involved and equipment and facilities all at the same time. It became obvious to this manufacturer then, that if he could duplicate the actual flight conditions in his own laboratories he could save considerable sums of money and pay for the equipment in a very short period of time.

Eliminated Extremely Costly Routine

It was obvious to him, that it was extremely costly to develop a particular component, load it on the truck, transport it to the airport, install it in the aircraft, have the pilot fly it at the desired temperature, altitude conditions encountered, and then if there should be a failure of the equipment, land the aircraft, remove the equipment, load it on the truck, transport it back to the laboratories for adjustments or modifications, and then repeat the process over again until a satisfactory model has been obtained.

To reproduce the actual conditions in his laboratories was a relatively simple matter. The present day altitude chambers originated from this first application.

Types of Test Chambers

Under the general classifications of test chambers, there are several subdivisions and in accordance with the various types of applications. These are:

(1) High altitude and wind tunnel chambers;
(2) Humidity cabinets;
(3) Altitude cabinets;
(4) Low temperature cabinets; and
(5) Low temperature and humidity cabinets.

A brief description of a flight similitude and wind tunnel chamber is similar to the description of the cabinet designed and contructed for the radio manufacturer above. These flight similitude cabinets and wind tunnel chambers are designed and constructed to simulate flight conditions. They will reproduce the low air pressures encountered in high altitudes and low temperatures as well as high temperatures and high humidities if this particular feature is required.

In other words, it combines all the variables of temperature, humidity, and pressure in one test facility in order to give complete control and perform the majority of the environmental test conditions.

Wind tunnel chambers, of course, are large variations of a self-contained cabinet in that the size of a wind tunnel may be considerably larger or smaller depending upon the terms and specifications involved.

Under the various applications of these flight similitude cabinets come the variety of testings of radio and component equipment. The example of the manufacturer of the radio transmitter and receiver, above, is typical of the entire industry who might be interested in this type of equipment.

Used for Instrument Calibration

The second application is the instrument calibration. Manufacturers of instruments, particularly those used in aircraft whether they be temperature, pressure, or humidity apparatus are required to reproduce these conditions in order to calibrate their instruments.

It may be that the device to be tested is a resistance thermometer. These resistance thermometers are instruments used in conjunction with a meter on the control panel but for remote indications of temperature on the plane. These resistance thermometers must be calibrated accurately within a fraction of a degree, temperature variations, and it is imperative that close control and stable conditions with reproducible results be combined in a test facility in order to satisfy the requirements for instrument calibration.

The use of refrigerated altitude chambers for flight similitude cabinets for testing of models has also been a typical application. Samples of the device contemplated to be manufactured are reduced to scales or such a size as to be able to fit into limited areas, and in this manner performance can be predicted and even calculated as a result of the experimental model test.

Another application has been in the field of aircraft generator testing. One of the particular problems with aircraft generator has been the extremely short life of the carbon brushes used in the generator. These brushes have a very long life of approximately a thousand hours when used at relatively low altitudes of aircraft flight.

However, at the higher altitudes being encountered with more improved planes, it has been found that the brushes deteriorate and are consumed so rapidly that very often their life is much less than a normal extended flight of the aircraft. The reason for their complete deterioration in such a short period of time has been attributed to the fact that there is not air or moisture present in the atmosphere of high altitudes to act as a lubricant and, hence, very rapid consummation of the brushes results.

Actual Air Conditions Aided In Brush Production

In order to develop a suitable brush, it was necessary to simulate actual air conditions in the laboratory so that extensive tests could be run with various types of brushes in the aircraft generators. This has been one of the most severe problems to the Carbon Brush Industry as well as to the Aircraft Generator Manufacturing Industry, and it has been assisted materially by the feasibility of duplicating flight conditions conveniently in the laboratory.

Low temperatures of -100° F. have been used for testing the equipment under tests. Other applications for this type of equipment have been for the testings of oxygen regulators particularly for their function at low temperature and under conditions

(Continued on next page)

ATTENTION MANUFACTURERS OF FREEZERS & BEVERAGE COOLERS:

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COMMERCIAL REFRIGERATION EQUIPMENT
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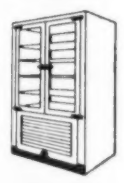
here's the best method for AUTOMATIC DEFROSTING of

MEAT DISPLAY CASES

SELF-SERVE CASES

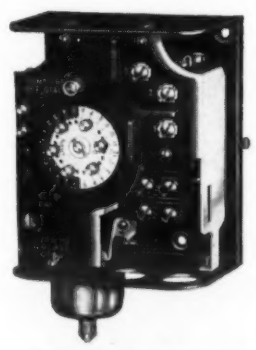
REACH-IN BOXES



T-P . . . Time-Pressure Defrosting . . . is the best method for defrosting coils in the 24° F. to 35° F. refrigeration range and higher. Here's why . . .

It *automatically and correctly varies* the defrost period as required . . . no more annoying problems to determine length of shut-down time which fluctuates considerably with the load and weather conditions. T-P *avoids unnecessary* shut-down time by stopping compressor *only* long enough to defrost . . . NO LONGER . . . and does it *automatically!*

Simple, compact and convenient to mount and wire, the PENN Series 325 Time-Pressure Defroster is easy to sell. Learn more about it. Ask your wholesaler or write **Penn Electric Switch Co., Goshen, Indiana.** Export Division: 13 E. 40th Street, New York 16, N. Y., U.S.A. In Canada: Penn Controls, Ltd., Toronto, Ontario.



Interior of Type 325. Timer can be set for one to eight "off periods" every 24 hours. Length of "off" period varies automatically with frost condition on coil.

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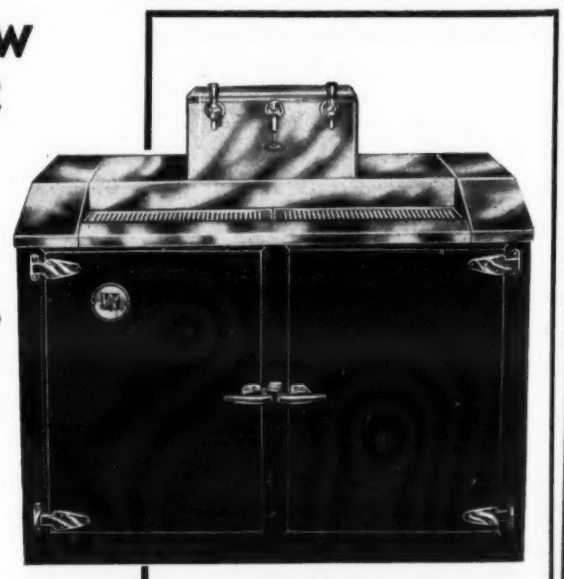

The swing's to clean, clear draft beer made possible by modern direct draw equipment—causing an increase in direct draw sales month after month. A prime factor in this spectacular upswing is the La Crosse Direct Draw with refrigerated faucets—the surest way to serve superior draft beer every time.

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LA CROSSE IS THE LEADER IN THIS TREND TO TASTIER TAP BEER

Refrigerated faucets keep beer at ideal temperature from keg to glass. No more wasteful, excessive foam . . . no morning draw off . . . no more "profit pirates." You save those wastes expected of ordinary draw equipment and serve a swell glass of beer every time.

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Test Chamber Applications--

(Continued from preceding page)

where moisture in the air might freeze on the various elements of the regulator.

Aircraft motors have been developed in the general type of equipment being discussed. Another interesting application was in the development of chemical fire extinguishers.

These fire extinguishers are of the chemical type under pressure with an operating mechanism to discharge the fire extinguisher fluid at the fire through a gun type nozzle.

The purpose of the conducting of tests under the conditions of altitude and low temperature was to determine what the type of mechanism designed should be to assure perfect functioning and low temperatures.

Secondly, under low temperatures encountered in flight the pressures of materials contained in cylinders was materially reduced and other fluids of varying compositions had to be developed in order to insure a satisfactory propelling of the fire extinguisher fluid itself through the hose and at the fire.

A prominent manufacturer of fire extinguishers employed the altitude low temperature cabinets for such development and research work on their fire extinguishers. The testing and calibration of other aircraft instruments such as Gyroscopes, artificial horizons, aerial cameras, optical apparatus, bomb sights, etc., are also tested within this type of equipment.

Aircraft mechanisms such as bomb rack clip hoses for flexible connections, hydraulic cylinders, and actuators, etc., require this type of testing apparatus in order to determine proper functioning and operation.

A non-military application for this type of equipment was to the fountain pen manufacturers who wanted to develop a fountain pen which could be carried by passengers in a commercial airline flying at fairly high altitudes without having the ink forced out of the pen by the change of pressure. It can be easily seen that this presented a problem in the early days of the manufacture of pens, and it was by the use of this equipment that the properly designed pen that we use today can be flown in the pocket of an airline passenger without having any fear of the ink leaking out.

Protest M-47--

(Concluded from Page 1, Column 2)

M-47 and allowing a manufacturer to use his total permitted percentage of steel to make any article listed in this section, without regard to the base period use of steel for that item, committee members contended would avoid labor layoffs, direct materials into production of articles of greatest demand, and make factory space more readily available for defense work.

NPA officials explained that M-47 employs the control device upon single or closely related items for two reasons:

(1) NPA seeks to maintain the economic balance between multiple and single product manufacturers. If a multiple-line producer is permitted to shift his total permitted percentage of steel at will from one line to another as, from refrigerators to stoves, he would have a competitive advantage over the single-line company which produces only refrigerators.

(2) To best serve the public interest by relating the percentage use of steel available for consumer consumption to base period use, which shows the public's purchasing pattern in the last period of freely competitive economy.

Most companies in the refrigerator and freezer field are multiple-line companies, committee members stated, adding that these firms would not object to a somewhat higher percentage of steel being authorized for single-line companies.

One single-line producer opposed the recommended change.

Task forces previously appointed to study conservation measures and possible limitation orders reported today.

The refrigerator group asked NPA to call for the bill of materials used and units made in the base period and in the April-May-June, 1951 period. Such a report will show great savings achieved in use of critical materials and ingenuity in substitution of alternate materials, such as steel hardware for zinc, the committee said, and would provide NPA with current information on which to base permitted consumption.

Committee members unanimously opposed the issuance of a limitation order on unit production. They said they believe that current orders controlling scarce (critical) materials are sufficient to safeguard national interests.

Government Contracts

PROCUREMENT INFORMATION

The following is a list of proposed procurements issued by the various indicated U. S. Government procurement offices. This list is compiled and made available daily on a free pick-up basis. Prospective bidders may obtain complete bid sets by a request **to the purchasing office under which the purchase is listed** in this Synopsis. Be sure to identify completely the bid invitation you wish by including in your request the item description, the invitation number or reference number and the opening date.

DEPARTMENT OF DEFENSE

It is not necessary to refer solely to the issuing office for additional data on a bid invitation issued by any of the following U. S. Army Ordnance Offices: Ordnance Tank Automotive Center; Detroit Arsenal; Frankford Arsenal; Picatinny Arsenal; Raritan Arsenal; Rock Island Arsenal; Springfield Armory; Watertown Arsenal; and Watervliet Arsenal. Complete information on any purchase listed by any of those offices alone can be obtained from the Ordnance District Office nearest you. Its address is on file in your nearest Department of Commerce Field Office. Do not ask an Ordnance District Office for information on a purchase unless it is listed by one of the above-named offices. **Ordnance District Offices do not have information on any other purchases.**

Description	Quantity	Invitation No.	Opening Date
Commanding General, Ordnance Tank-Automotive Center, 1501 Beard St., Detroit, Mich.			
Blower Ventilating Assy.	300 ea	3245	15 May 51
Supply Officer, Naval Proving Ground, Dahlgren, Va.			
Air Conditioners	8 ea	1-47	22 May 51
Cooling Towers	6	1-48	28 May 51
Officer In Charge, Navy Purchasing Office, Washington, D. C.			
Condensate Filters, 180 GPM Per Unit, Complete	6	2969-S	15 May 51
Commandant of the Marine Corps, Washington, D. C. Attn.: Supply Dept., Procurement Section			
Ice Cream Plant, Portable, 80-Gal. Capacity	30	1753	31 May 51
Air Conditioning Units, Electric, Portable	250	1811	31 May 51
District Public Works Office, 9th Naval District, Great Lakes, Ill.			
Work consists of remodeling of the plating room ventilating system at NOP, Indianapolis, Ind., no dep. required		28571	18 May 51

GENERAL SERVICES ADMINISTRATION

Description	Quantity	Reference No.	App. Bid Date
Chief, Purchase Division, Federal Supply Service, General Services Administration, Room 528, U. S. Court House, 219 S. Clark St., Chicago 4, Ill.			
Water Cooler, Electric	1	CH-32247	5-21-51
Chief, Purchase Branch, Federal Supply Service, General Services Administration, 50 Whitehall St., S. W., Atlanta, Ga.			
Fan Repair Service In Charlotte, N. C., from June 1 to May 30, 1952	various	AT-2235	5-25-51
Fan Repair Service In Columbia, S. C., from June 1 to June 30, 1952	Various		5-28-51
Regional Information Officer, Region 3, General Services Administration, Washington 25, D. C.			
Humidifier, Open Tank Model One Gal. per Hour	2	1142	5-22-51
Chief, Contract & Procurement Section, Public Buildings Service, General Services Adm., 12th Floor, 250 Hudson St., New York 13, N. Y.			
Rental of Electric Water Coolers, Commercial Trust Bldg., Phila., Pa., Period 7-2-51 to 6-30-52	4	NY-BM-1-181	5-14-51

TREASURY DEPARTMENT

Description	Quantity	Reference No.	App. Bid Date
Purchasing Officer, Bureau of Engraving and Printing, 14th and C Sts., W. S., Washington 25, D. C.			
Air Conditioning Units, Self-Contained, Complete with Motor Drives, Air Circulators and Controls	5	BEP-437	5-24-51

CONTRACTS AWARDED AS OF MAY 2, 1951

Description — Contractor and Address

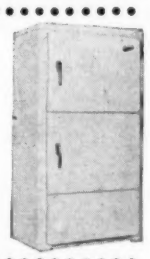
Department of the Navy, Bureau of Ships, Washington 25, D. C.
Pump, Air Conditioning Circulating—Warren Steam Pump Co., Warren, Mass.
Valves, Plug Rotary—Kerotest Mfg. Co., Pittsburgh, Pa.
Chemical Corps Procurement Agency, Army Chemical Center, Maryland
Items of Desiccant, Activated, Etc.—The Davison Chemical Corp., Baltimore 3, Md.
Items of Desiccant, Activated, Type V—Eagle Chemical Co., Inc., Joliet, Ill.
Items of Desiccant, Activated, Etc.—Filtrol Corp., Los Angeles.
District Public Works Office, Twelfth Naval District, Federal Office Building, San Francisco 2, Calif.
Installation of air conditioning system in Orthopedic Operating Room, Naval Hospital, Oakland, Calif.—Western Plumbing & Heating Co., 2590 Folsom St., San Francisco, Calif.
U. S. Navy Purchasing Office, 1206 South Santee St., Los Angeles 15, Calif.
Humidity and altitude test chamber and associated equipment—Betterbilt Engineering & Mfg. Co., Inc., 11111 Chandler Blvd., North Hollywood, Calif.
Chicago Quartermaster Depot, U. S. Army, 1819 West Pershing Rd., Chicago 9, Ill.
Refrigerators, El., 65 cu. ft.—Bally Case & Cooler Co., Bally, Pa.
Refrigerators, El., 65 cu. ft.—Ed. Friedrich, Inc., San Antonio, Texas
Refrigerators, El., 65 cu. ft.—C. V. Hill & Co., Inc., Trenton, N. J.

United FOR Quality AND Economy

DRY KOOL BOTTLE COOLER

World famous for performance and design. 14 models to meet all requirements in stainless steel or brown Dulux finish.

UPRIGHT FREEZER
15 Cubic Feet



Scientific placement of cooling coils, two separate food compartments, dual doors to minimize cold loss, insure balanced freezing at minimum cost.

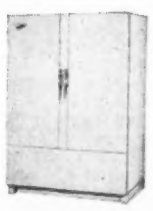
KUBEMASTER ICE CUBE MAKER

Whenever food or refreshment is served, ice cubes as you need them. Choice of 3 beautiful models.

KOOLMASTER DIRECT DRAW

Engineered to serve beer to the "Brewmaster's" taste. Its smart appearance enhances any establishment. Choice of 8 models in Stainless steel or brown Dulux finish.

REACH-INS



Modern flush fronts with recessed handles in popular sizes. Ten models to choose from. Available in white Dulux, stainless steel fronts and glass doors.

DESIGNED—ENGINEERED—MANUFACTURED By
UNITED REFRIGERATOR COMPANY
Locust and Walnut Sts.
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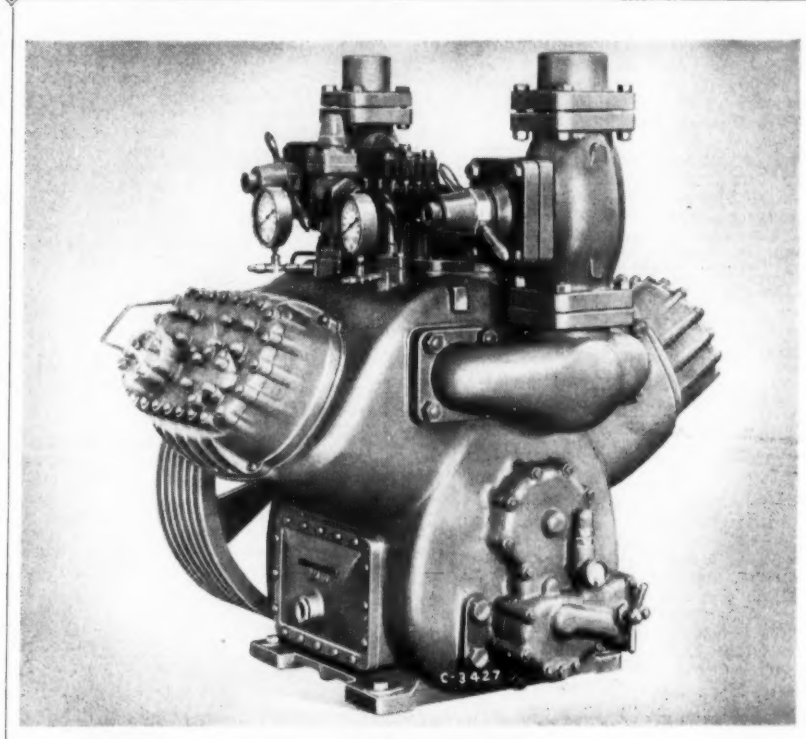
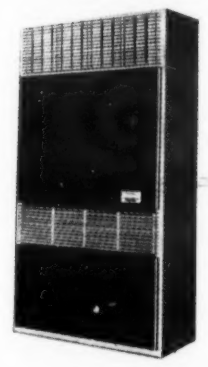


A BALANCED LINE . . . A BALANCED FRANCHISE

A Worthington distributor can handle *any* job with exactly the right equipment because the Worthington line is the broadest.

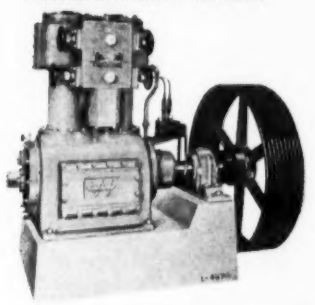
In addition to Freon equipment, Worthington makes—

PACKAGE AIR CONDITIONERS



3, 5, 7½ ton units. Also for remote location — 7½, 10, 15, 20, 25 ton units

AMMONIA COMPRESSORS



1 to 150 tons.
Also ammonia boosters.

FAN AND COIL UNITS

A complete line of evaporative condensers, evaporative coolers, air conditioning units, wet and dry product coolers for both Freon "12" and ammonia

Also: shell and tube condensers, water coolers, valves, fittings, pumps

The Largest "Cast"... and the Biggest "Star" in the Business

You who handle the Worthington line have three big selling "plusses."

You handle a *complete* line. Therefore, you can always recommend—without bias—the *right* equipment for the job.

You can talk about the *best* compressor in the business. One basic compressor design covers a size range from 2 to 125 tons in three cylinder sizes.

You can promise *lowest-cost* operation because Worthington also *builds* (not just assembles) all the important components interrelated with the compressor—all designed by the one manufacturer for efficient companion operation on the job.

Remember—nobody else has a broader line, a better compressor, or a completely integrated and balanced system.

WORTHINGTON FREON-12 COMPRESSOR FEATURES:

exclusive Feather* Valve—simplest, tightest, quietest ever made—eliminates valve grinding and rarely needs replacement. Lightweight automotive pistons. Internal manifold. Renewable cylinder liners. Leak-proof, continually-cleanable force-feed lubrication on larger models. Positive manual or automatic capacity control.

*Reg. U. S. Pat. Off.

WORTHINGTON

AIR CONDITIONING AND REFRIGERATION

Take advantage of the completeness of the Worthington line and capitalize on Worthington's national advertising. Find out why *there's more worth in Worthington* by writing Worthington Pump and Machinery Corporation, Air Conditioning and Refrigeration Division, Harrison, N. J. A.1.10

YOUR BEST INSURANCE AGAINST EXPLOSION DANGER!

FINE "SEAMLESS" CYLINDERS

give maximum safety for only 3 cents a year! Cheapest insurance you can buy against explosion danger from cylinder overfilling! Their extra capacity . . . 4.8 lbs. compared to 4.0 ICC requirements . . . decreases high pressure due to hydrostatic expansion. Heavier metal walls, thicker at ends. No welded seams. Fusible safety provided as standard equipment. Spring loaded safety, slightly extra.

. . . Ask your Wholesaler about Fine's new 5 lb. cylinder No. 5E, stands erect!

Fine PRODUCTS CO. 185 NORTH WABASH AVENUE CHICAGO 1, ILLINOIS

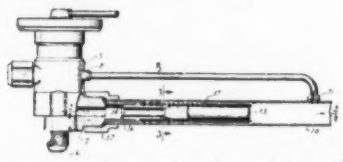
PATENTS

Week of December 19 (Continued)

2,534,789. ABSORPTION REFRIGERATION. Glen W. Miller, Covina, Edward L. Kells, Alhambra, and Delmar H. Larsen, West Hollywood, Calif. No Drawing. Application Oct. 5, 1946, Serial No. 701,402. 12 Claims. (Cl. 62—179.)

1. A refrigerant-solvent combination for use in absorption refrigeration machines consisting essentially of perchloroethylene in substantial concentration as the solvent and a refrigerant in substantial concentration chosen from the group of aliphatic hydrocarbons of fewer than four carbon atoms and having at least one hydrogen atom substituted by a halogen of atomic weight less than 50.

2,534,874. REFRIGERANT EXPANSION DEVICE. George Mettler, North Bergen, N. J. Application Jan. 26, 1948, Serial No. 4,365. 2 Claims. (Cl. 62—127.)

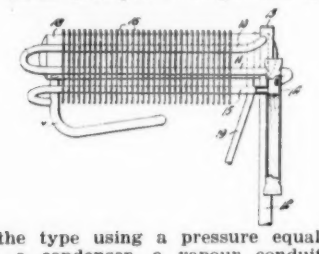


1. An expansion device for refrigeration of the character described, comprising an expansion valve in combination with a cylindrical element connected to the outlet of said valve, said cylindrical element having an axial, longitudinal hole communicating with said valve outlet and a transverse, radial hole near the bottom of said axial hole; a piece of flexible tubing surrounding said cylindrical element under pressure, and fastening means securing one end of said flexible tubing, said fastening means being located between said outlet connection of said expansion valve and said transverse, radial hole.

Week of December 26

2,535,075. ABSORPTION REFRIGERATION. Wilhelm Georg Kogel, Stockholm, Sweden, assignor to Aktiebolaget Elektrolux, Stockholm, Sweden, a corporation of Sweden. Application May 4, 1945, Serial No. 592,001. In Sweden May 9, 1944. 5 Claims. (Cl. 62—119.5.)

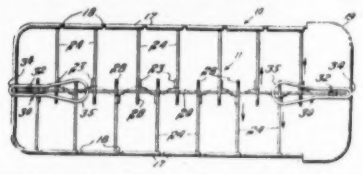
1. In an absorption refrigeration system



of the type using a pressure equalizing gas, a condenser, a vapour conduit for supplying vapour to the condenser, a vessel in heat exchange relation with the vapour conduit and connected between the condenser and a delivery pipe to cause a continuous flow of condensate therethrough, said delivery pipe being so connected to the vessel as to maintain a body of liquid condensate in the vessel to cool and separate absorbent from refrigerant in the vapour conduit and deliver condensate above a predetermined level adjacent the top of the vessel, and said vapour conduit being disposed exteriorly of and in heat exchange relation only with the outer peripheral surface of said vessel at one side of the latter along a vertically extending region thereof to transfer heat to the body of liquid condensate asymmetrically to cause an upward flow of liquid at said one heated side and a downward flow at the opposite side whereby to cause a continuous circulation and mixing of the liquid condensate in the vessel.

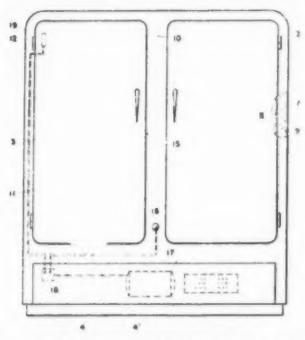
2,535,176. ICE TRAY. Robert S. Taylor, Evansville, Ind., assignor to Servel, Inc., New York, N. Y., a corporation of Delaware. Application Feb. 28, 1946, Serial No. 650,827. 10 Claims. (Cl. 62—108.5.)

1. The method of freeing ice cubes



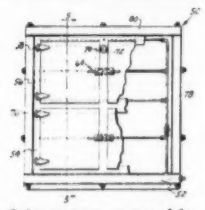
bonded to the continuous longitudinal and articulated lateral partitions of a grid in an ice freezing tray which comprises moving the grid relative to the tray, restraining the movement of the lateral partitions at fixed points during such movement to cause them to pivot with respect to the longitudinal partition, and applying a series of force couples at spaced points along the longitudinal partition to cause it to warp sinuously throughout its length.

2,535,278. REFRIGERATOR CABINET. James Loren Fletcher, Fayetteville, N. Y., assignor to Carrier Corp., Syracuse, N. Y., a corporation of Delaware. Application June 21, 1946, Serial No. 678,324. 3 Claims. (Cl. 62—89.)



1. In a refrigerator including a storage compartment, the combination of a metal stile having an exposed surface, a plurality of doors adjacent said stile closing openings in the storage compartment, exposed edges of said doors and the exposed surface of said stile forming a vertically extending channel, refrigerating means for refrigerating the storage compartment to a desired temperature, a warning device placed on the lower portion of said stile for signalling to an observer failure of said refrigerating means, said device serving to generate heat during operation of the refrigerating means to warm the exposed surface of said stile by conduction and to warm ambient air in the channel, at least some portion of the warmed air passing upward along the channel, thereby warming the exposed surface of the stile to an extent sufficient to prevent substantial collection of moisture thereon.

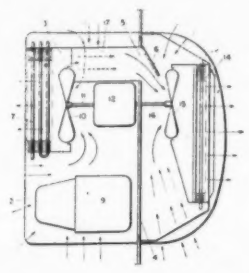
2,535,682. PREFABRICATED REFRIGERATOR CONSTRUCTION. Frederick M. Jones, Minneapolis, Minn., assignor, by mesne assignments, to U. S. Thermo Control Co., Minneapolis, Minn., a corporation of Minnesota. Application Jan. 2, 1947, Serial No. 719,822. 9 Claims. (Cl. 62—89.)



1. A refrigerator assembly comprising in combination, a plurality of independent metal clad wall members having co-operating portions formed of material having a low thermal transfer capacity, means for insulatingly securing each of said wall members consecutively in the engagement with another wall member in such a manner that they collectively form a sealed enclosure, a plurality of heat exchanging shelf members supported on said walls within said enclosure, and means carried by one of said wall members for connecting said heat exchanging shelf members with a source of fluid refrigerant, said several members each being constructed as an independent unitary element for knock-down assembly with the remainder of said members.

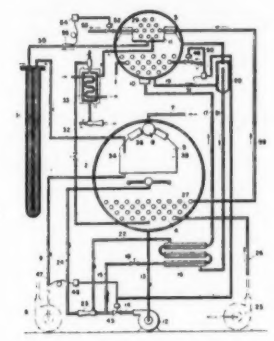
2,535,775. SELF-CONTAINED AIR CONDITIONING UNIT. Carlyle Martin Ashley, Syracuse, N. Y., assignor to Carrier Corp., Syracuse, N. Y., a corporation of Delaware. Application Jan. 14, 1948, Serial No. 2,247. 5 Claims. (Cl. 62—129.)

1. In a self-contained air conditioning unit, the combination of a condenser compartment, a condenser in said compartment, a fan in the compartment to pass exterior air through the condenser, a chamber disposed between the condenser and the condenser fan, air in said chamber being under compression created by the condenser fan, an evaporator compartment, an evaporator therein, a second fan in the evaporator compartment to pass room air through the evaporator, a duct extending within the condenser compartment connecting the chamber and the evaporator compartment, pressure of air in said chamber being sufficient to force air through the duct into the evaporator



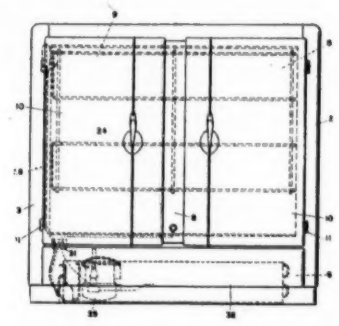
compartment, said second fan being located with respect to the outlet of said duct in a position to receive air passing through the duct.

2,535,776. ABSORPTION REFRIGERATION SYSTEM. Alexis A. Berestneff, Syracuse, N. Y., assignor to Carrier Corp., Syracuse, N. Y., a corporation of Delaware. Original application July 13, 1946, Serial No. 683,387. Divided and this application May 27, 1948, Serial No. 29,526. 3 Claims. (Cl. 62—5.)



1. A spray arrangement which comprises a cylindrical member adapted to receive a fluid, a second cylindrical member surrounding said first member, the longitudinal axis of the first member being disposed in a plane above the plane of the longitudinal axis of the second member to provide space for the accumulation of fluid in said second member, said first member having a plurality of openings therein connecting the interior thereof with the interior of said second member, said second member having a plurality of nozzles connected with said second member adapted to discharge fluid in a series of substantially uniform sheet-like sprays, the openings in said first member being disposed a sufficient distance above the nozzles of said second member to permit fluid to accumulate in the base of said second member adjacent the nozzles thereby reducing the turbulence of fluid flow in the second member and its velocity of discharge from said nozzles.

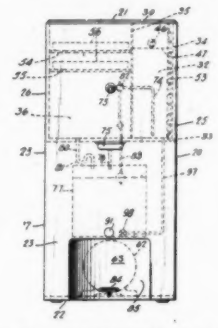
2,535,790. REMOVABLE REFRIGERATION UNIT WITH CABINET STRUCTURE. James L. Fletcher, Fayetteville, and Walter Peglow, Cazenovia, N. Y., and Thomas G. Crider, Lima, Ohio., assignors to Carrier Corp., Syracuse, N. Y., a corporation of Delaware. Application Nov. 30, 1946, Serial No. 713,308. 3 Claims. (Cl. 62—117.2.)



3. In a refrigerator cabinet, the combination of a shell, a liner spaced from the shell enclosing a storage compartment, insulation material disposed between the shell and the liner, said liner and shell having an opening therethrough permitting access to the storage compartment, a removable mullion extending from one side of the opening to the other and separating the opening into a plurality of similar openings, said mullion including a rear wall member, strap members secured to the rear wall member, said strap members having openings therein, fastening means extending through the openings in the strap members to secure the rear wall member to the liner, a front wall member, brackets adjacent the front wall member and the shell, and fastening means securing the brackets to the front wall member and to the shell, a heat exchanger in the storage compartment having a length greater than the width of the opening therein, a machine compartment enclosed by the shell, elements of the refrigeration system disposed in the machine compartment, said elements being connected to the heat exchanger in the storage compartment, removal of the mullion permitting removal of the heat exchanger and the elements of the refrigeration equipment as a unit.

2,536,009. REFRIGERATOR AND WATER COOLER. Orville C. Morrison and Samuel O. Morrison, Media, John G. Wehrwein, Havertown, and Earl A. Gott, Lansdowne, Pa., assignors to Sunroc Refrigeration Co., Dover, Del., a corporation of Delaware. Application Feb. 7, 1948, Serial No. 6,924. 4 Claims. (Cl. 62—141.

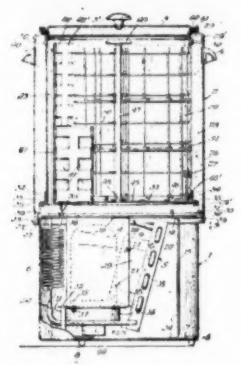
1. In a refrigerator and water cooler, a cabinet, a mechanical refrigeration unit including a compressor, a condenser and cooling units in the cabinet, a water cooling compartment at one lateral portion of the top of the cabinet in heat transfer relation with one of the cooling units, a refrigeration compartment at another lateral portion of the top of the cabinet in heat transfer relation with another cooling unit, a water dispenser connected to the water cooling compartment, an interior waste water storage compartment in the cabinet below the water cooling and refrigeration compartments, a sump below the dispenser and above the waste



water storage compartment and connected thereto for pouring waste water from the dispenser into the waste water storage compartment, a drainage connection from the refrigeration compartment to the waste water storage compartment, a discharge for the waste water storage compartment, and a selectively open drainage connection from the bottom of the water cooling compartment to the discharge.

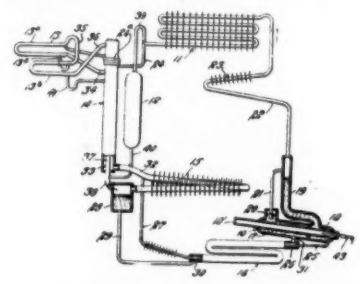
Week of January 2

2,536,287. PORTABLE REFRIGERATOR. Joseph C. Higgins and Manfred J. Pollack, Chicago, Ill.; said Pollack assignor to said Higgins. Application March 3, 1948, Serial No. 12,867. 7 Claims. (Cl. 62—116.)



1. In a refrigerator, a housing including walled bodies, one of said bodies having a bottom and a way therein for access to its interior, a closure for said way, the other of said bodies having an open end, and means in and supported by the other body at the bottom thereof extended from its open end and supporting said first body in spaced relation thereto.

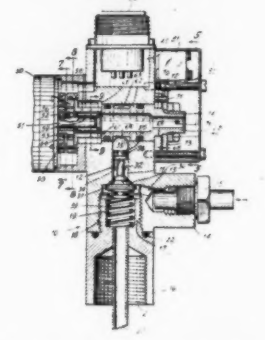
2,536,342. GAS HEAT EXCHANGER AND CONDENSATE PRECOOLER. Carl T. Ashby, Evansville, Ind., assignor to Servel, Inc., New York, N. Y., a corporation of Delaware. Application Dec. 8, 1947, Serial No. 790,342. 3 Claims. (Cl. 62—119.5.)



1. In an absorption refrigerating system of the continuous cycle inert gas type, a tubular casing having in one end a chamber communicating with one end of a conduit located within said casing and forming therewith a heat exchanger, an inlet for gas to said chamber, an outlet for gas from the other end of said conduit, an inlet for gas to said casing adjacent the outlet end of said conduit, an outlet for gas from said casing adjacent said chamber, and a conduit for liquid arranged in thermal contact with said casing exterior of said chamber.

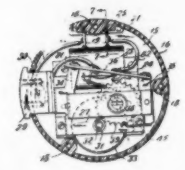
2,536,691. THREE-WAY MOTOR OPERATED VALVE. Edward G. Miller and Ralph E. Engberg, Clayton, Mo., assignors to Alco Valve Co., Maplewood, Mo., a corporation of Missouri. Application March 25, 1943, Serial No. 480,484. 13 Claims. (Cl. 137—144.)

10. In a mechanism of the kind described, a reversible rotary motor means, a rotated member adapted to be operated by the rotary motor means, a pair of actuated devices, operating means angularly spaced around the rotated member and movable thereby, one operating means for each actuated device, limit switch means for controlling the direction of rotation of the motor means, including a cam for operating the limit switch means, and a lost motion connection be-



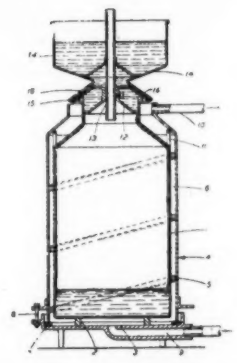
tween the rotated member and the cam for moving the cam only when the rotated member moves an operating means.

2,536,741. DEFROSTING TIMER. Richard A. Haigh, Brighton, Mich., assignor to Automatic Controls Corp., Ann Arbor, Mich., a corporation of Michigan. Application Oct. 15, 1949, Serial No. 121,619. 7 Claims. (Cl. 161—1.)



1. In an electrical timing unit, a clock having an hour shaft rotating in a given direction, a second shaft parallel to said clock shaft, a wheel on said second shaft having peripheral notches therein, yieldable means carried by said clock shaft and projecting laterally therefrom for meshing engagement with said notches one at a time and adapted to impart intermittent rotation to said wheel in the reverse direction, a switch, means for actuating said switch comprising a projection turning with said wheel, and means for manually turning said wheel in said reverse direction, said yieldable means being adapted to yield and permit said manual turning in said reverse direction, whereby the angular position of said wheel relative to that of said clock shaft may be manually selected.

2,536,752. MILK COOLING DEVICE. Jonas Arthur Kingston, Tilehurst, England, assignor to Gascoignes (Reading) Limited, Reading, England, a British company. Application April 11, 1945, Serial No. 587,693. In Great Britain April 4, 1944. 2 Claims. (Cl. 257—208.)



1. A cooling jacket for milk containers of the type having a cylindrical body portion, a conical shoulder portion, a cylindrical neck portion and handles extending upwardly from said cylindrical portion and comprising a base member for supporting a milk container, a separable jacket member on said base member, said jacket member having a cylindrical body portion, a conical shoulder portion inwardly directed from said cylindrical body portion and a cylindrical neck portion, said jacket member being larger than said milk container but corresponding in shape thereto, said jacket member having an open lower end resting on said base member, fluid sealing means between said jacket and said base, cooling fluid inlet means in said base opening into said jacket, cooling fluid outlet means in said jacket and spacing means on the internal wall of said jacket for spacing said jacket and said milk container and forming a cooling fluid chamber therebetween, said jacket being placeable over said milk container on said base, after said milk container has been placed thereon, by passing said jacket over the top of said container onto said base, said conical shoulder portion on said separable jacket contacting the handles on said milk container and preventing said container from rising under the buoyancy effect of cooling liquid in the jacket.

(To Be Continued)

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Show-How Leads to Know-How

Developments in plastics and the ingenuity of engineers today makes it possible to demonstrate the "inner workings" of almost any type of equipment. At the recent Buffalo educational conference and exhibit a ¼-hp. Par hermetic refrigerating unit fitted with a clear plastic dome was operated at full speed. Left to right are Ben Scholl of Lynch Corp.; Louis Calderone, Jr., Lane Refrigeration, Island Park, N. Y.; Jacob Van Pelt, Automatic Refrigeration Co., Toronto; Bob Ogletree, Lynch; George Tordreff and W. H. Sneath, Toronto.

Robinson Named General Sales Mgr. for Torrington

TORRINGTON, Conn. — Appointment of Dudley B. Robinson as general sales manager of the Torrington Mfg. Co. here has been announced by S. W. Farnsworth, president.

Robinson succeeds Donal G. Leslie, whose resignation as vice president and general sales manager recently became effective.

Robinson joined Torrington in May, 1949, as assistant general sales manager. Before that, he was associated with the Warren McArthur Corp., Bantam, Conn. There he was in close touch with the aircraft industry in connection with the sale of aircraft seating. During the early war years, he spent about three years at the Bantam plant, where he organized and directed the purchasing and material control departments.

MORE INFORMATION?

Use Handy Coupon on "What's New" Page of this issue. Use Key No. for fastest service.

Jamaica May Import More Air Conditioning Under New Plan

WASHINGTON, D. C.—Jamaica's new "token import" program may permit that country to import U. S. air conditioning equipment, according to *Foreign Commerce Weekly.*

Only one theater in Jamaica has complete air conditioning, and it uses U. S. equipment, the magazine noted, adding:

"Public reaction to it has been good and it is hoped that with the advent of the token-import program [now in effect] it will be possible to import more air conditioning equipment from the United States."

Mary Grace Heads Wholesalers Home Economics Department

BUFFALO—Miss Mary Grace has been appointed head of the home economics department of Western Merchandise Distributors, Inc., appliance wholesaler, it was announced by Lee Wells, vice president.

Miss Grace has been identified with local food and restaurant concerns. She is a member of the Industrial Cafeteria Association and a member of the board of directors of the Western New York Restaurant Association.

Two-Way Punch

Copper Shortage Due to Government Stockpiling Plus Foreign Aid Program

BALTIMORE — C. Donald Dallas, chairman of the board of Revere Copper & Brass, Inc. charged that the nation's copper industry is the victim of a two-way punch.

He claimed that while European countries have been receiving copper from the United States through the Economic Cooperation Administration, some of them have been outbidding the U. S. for copper from Chile and other foreign sources.

Dallas said the "leakage" of the country's normal copper supply and continuance of the government's stockpiling program were mainly to blame for the current critical shortage. And he reported that rising prices of scrap copper have been handicapping his company.

"While prices of refined copper and our manufactured products were frozen by government action, uncontrolled prices for scrap soared higher than those paid for refined copper," he declared. "It is obvious that higher prices for imported copper and controls on scrap will not end shortages in commercial uses.

"The proposed Controlled Materials Plan, applying only to a small percentage of consumption, hardly seems practicable. But a Controlled Materials Plan that would include complete equitable allocations of all raw copper would be much more constructive."

I-H Develops Training Program Aimed at Making New Salesman an Expert

CHICAGO—Making the untrained salesman an expert at his job is the objective of a new national refrigerator sales training program developed by International Harvester Co.

Key item in the program is a kit containing 75 visual aids. These aids include film strips, felt board cutouts, and demonstration boards.

The four-part program covers product knowledge, demonstration of product features, effective demonstration, and selling in the home. The latter part tells the salesman how to size up the prospect's needs and buying habits during a home call, how to use the sales manual and other aids in home demonstrations, and how to make appointments for such demonstrations.

J. H. Coats, I-H sales promotion manager, said the program is a flexible one. It can be presented in from four to eight hours, depending on what subjects the instructor wants to emphasize, he explained.

Coats also pointed out that the program was designed to promote audience participation.

To help keep interest high, a "keno" game has been incorporated in the program.

Minimum goal of the program, Coats said, is one additional refrigerator sale a month by each retail salesman.

Service Parts Depot, Warehouse Planned By International Harvester for Denver Area

DENVER — International Harvester has announced the letting of most of the major contracts for the construction of a new building which will house a service parts depot and a general sales district office and warehouse here.

The announcement was made locally by C. P. Wells and M. W. Jones, Harvester's general sales and motor truck sales district managers in Denver.

The building project will cost approximately $1,500,000. Construction work on the building, located at 46th and Colorado Blvd., will start immediately. The completion date will depend upon the availability of building materials but it is hoped that the building will be completed in the latter months of 1952, the company said.

The new building will be a one-story structure and will contain approximately 181,000 sq. ft. of floor space. The front elevation will be constructed of red face brick. A sprinkler system will be installed throughout all storage areas to provide adequate fire protection.

A spur of the Chicago, Burlington & Quincy railroad will serve the new facility. Large loading docks will accommodate the loading and unloading of motor trucks also.

The new district office and warehouse, when completed, will replace Harvester's present general sales district office, located at 2308 15th St.

Harvester's motor truck district sales office, now located at 15th and Platte St., will move into its new building now under construction at 3280 Brighton Blvd.

Wells and Jones said the company's service parts depot, the other operation to operate in the new building, will be an entirely new Harvester facility in Denver. The depot will be one of 11 other depots the company has established throughout the United States.

It will serve as a wholesale distribution center for service parts for all Harvester products, including refrigeration. The depot will serve all Harvester dealers and company operations located in the states of Colorado, Wyoming, and parts of Utah, Arizona, and New Mexico.

The depot will be equipped with the latest materials handling equipment available, the managers said. One of the unusual features of the depot will be the use of a mechanical conveyor system which will facilitate the handling of large volumes of service parts.

The company will employ about 150 people at the depot when it is in full operation. This figure does not include the employes of the sales office who also will be located in the building.

Mitchell Appoints 9 Room Cooler Distributors

CHICAGO — E. A. Tracey, vice president of the Air Conditioning Division of Mitchell Mfg. Co. here, announced the appointment of several new franchised distributors for the Mitchell line of window-type room air conditioners.

The new distributors are: General Electric Supply Corp., Portland, Me.; Paul-Jeffrey Co., Inc., Syracuse, N. Y., S. P. Solomon, president; Krich-Radisco, Inc., Newark, N. J., Paul Krich, president.

Miami Valley Distributing Co., Dayton; Hollander & Co., Inc., St. Louis; Frank Lyon Co., Little Rock, Ark.

Nelson Radio & Supply Co., Mobile, Ala.; Teague Hardware Co., Montgomery, Ala.; and the Ray Thomas Co., Los Angeles.

Fillback Becomes G-E Accountant

BRIDGEPORT, Conn. — Reino W. Fillback has been appointed accountant of the General Electric Co.'s electric sink and cabinet division.

Marberry Becomes Timken Merchandising Manager

DETROIT—R. M. Marberry, advertising manager, The Timken-Detroit Axle Co., has been appointed merchandising manager of the Timken Silent Automatic Division, it was announced by T. A. Crawford, vice president and general manager of the company.

In his new capacity, Marberry will direct the sales activities of the division, and will supervise all advertising and sales promotion.

OPS Opens New District Offices

WASHINGTON, D. C.—The Office of Price Stabilization has opened district offices in Albany, N. Y. and 11 cities where regional offices already exist, according to Price Stabilization Director Michael V. DiSalle.

The Albany office is under the direction of the regional office in New York City. The other district offices are in Boston, Philadelphia, Richmond, Atlanta, Cleveland, Chicago, Kansas City, Mo., Dallas, Denver, San Francisco, and Seattle.

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3-TON —CT3 cooling tower. Unidrive units. 120 foot external pumping head. Outdoor application. 5 ton—CT5 cooling tower. Unidrive units. 80 foot external pumping head. Outdoor application. Close-out—Write for prices. CIRCLE CONDITIONING CORP., 2809 Webster Avenue, Bronx 58, New York.

1—NEW Model 20-HF Freon Emery Thomp on 20-quart ice cream freezer, stainless steel panels, shopworn. Please write for additional information and price. FLINT REFRIGERATION CO., Birmingham, Ala.

TWO FIFTY-ton prominent brand compressor, evaporative condensers, air handling units and accessories, in original cartons for immediate delivery. $23,000. FOB Elizabeth. LEVY BROTHERS, Elizabeth, N. J.

COMPRESSOR BODIES, brand new; model #19 good up to 1-HP, @ $38; includes flywheel and service valve. The last of a large quantity. First come, first served. MANN REFRIGERATION SUPPLY CO., 15 Astor Place, NYC, GRamercy 3-8000.

¼-HP 0-25 prominent brand condensing units complete; brand new; limited quantity; act now; $52. each FOB New York; write for specifications; other sizes also available; MANN REFRIGERATION SUPPLY CO., 15 Astor Place, New York 3, N. Y.

FOR SALE—while they last—standard makes—new hermetic units—static & fan-cooled cond. ⅛, ⅙, ⅕, ¼, ⅓. Open Units—¼—⅓—½. Relays—⅛—⅙—⅕—½—also overload protectors. #673 Methyl T.X.V. Capacitors in jet-black steel case 190-240 mfd. Small hermetic driers. ¼" fl.—7½" overall Driers. Household Cold Control —w/Knob & plate. Also other parts and supplies. Send for our latest list and prices. Sold on money back guarantee. WALTER W. STARR, 2833 Lincoln Ave., Chicago, Ill.

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FOR SALE: To settle an estate. Going business 15 years. Selling commercial refrigeration and store fixtures, grocery, meat market, restaurant, tavern, drug, cafeterias, schools and churches. In thriving central Illinois town. Illinois and Indiana territory. BOX 3728, Air Conditioning & Refrigeration News.

SCHOOLS

VETERANS ATTENTION: Enroll in the school of your choice before the July 25 deadline. For men engaged in or who would like to become engaged in any phase of air conditioning, refrigeration, heating, ventilating, heat pump engineering or sheet metal work, classes before the July 25 date start April 24, June 5 and July 17. Write for catalog. DETROIT AIR CONDITIONING INSTITUTE, 4258 Woodward Avenue, Detroit 1, Michigan.

MISCELLANEOUS

NORGE SEALED units remanufactured and exchanged. Immediate delivery from stock, 1 year warranty. Write for prices and shipping instructions. Genuine Norge terminals for Norge sealed units. Complete set of three, $1.45 plus postage. MODERN REFRIGERATION CO., INC., 12541 E. McNichols Road, Detroit 5, Michigan.

TERMINAL LEAKS on sealed units repaired from outside. Only $1.25 per unit. 3 minutes to install. Guaranteed for life of unit. See your local jobber. For catalog on all sealed unit parts write to: SEALED UNIT PARTS CO., 261 East 161st St., N. Y. 51, N. Y.

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NARDA Raps M-47--

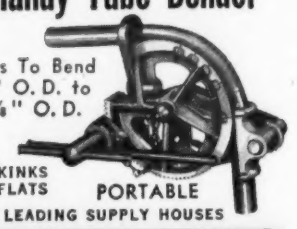
(Concluded from Page 1, Column 3)

what shall be produced and in what quantity. M-47, in certain instances, deprives consumer demand of this function."

Farr pointed out that many freezers are made by the same producers as refrigerators. They are relatively new products which should be entering a substantial growth period.

Refrigerators are in good supply. Were it not for portions of M-47, manufacturers could divert steel from refrigerators to freezers, permitting a new product its normal growth.

"Decrease the number of classifications under M-47," Farr urged, "so that the manufacturer producing multiple products under List A may shift their allocations as the public's wishes dictate."

for all tubing or pipe
Handy Tube Bender


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N. Y. Exams--

(Concluded from Page 1, Column 4)

glect and unwillingness of some property owners to make repairs" mechanical refrigerators in many apartment houses in New York City are "potential fire hazards."

He added that there had been 12,227 calls on defective refrigeration received by the police emergency service in the 20 months preceding last Aug. 30. Some 3% of these were on gas-operated refrigerators, he said.

N.Y. Starts Check of Gas Appliances

NEW YORK CITY—An intensive check of gas-burning appliances, including refrigerators, has been started here by 50 specially trained Health Department inspectors.

This special inspection was ordered following the 20th death here since Christmas of 1949 recorded as being due to carbon monoxide poisoning resulting from a defective gas refrigerator. In the same period gas ranges or other appliances reportedly caused 78 deaths.

Initially, inspections are being concentrated on 120,000 dwelling units in an area which extends south of Ninety-first St. and south of Seventy-fourth St. on the east and west sides of Central Park.

Health department officials say the 40.5% of New York City's accidental deaths caused by faulty household gas appliances from 1940 to 1949 occurred in this area. Many of the buildings here, officials added, lacked central heating systems and were more than 50 years old.

Inspection of units in this area probabaly will not be completed until September, and eventually it is planned to cover the entire city. It is estimated there are 2,800,000 gas meters and 700,000 gas refrigerators in use.

The inspection plan has the support of the Gas Appliances Manufacturers Association, according to H. Leigh Whitelaw, manager director, who said that the organization "endorses and will support the steps that are being taken now to eliminate the unsatisfactory conditions which, in a limited area, affect the public's use of gas appliances."

Manufacturers Studying Pricing Plans--

(Concluded from Page 1, Column 5)

Some feel that any discussion now is more or less academic until they find out where they stand.

Refrigeration Sales Co. of Lima, Ohio, national sales representative for the Universal line of refrigerators, stated its policy (which is typical of the others) in this way:

"All goods which after this date (May 2), during May until the 28th, will be billed at a current price. However, if our price under the order should be lower, we will accept your invoices for such differences as may exist. If our prices are higher under the order, there will be no extra charge to you. New prices will be announced on or before the 28th in accordance with the order."

One report from the field indicated that housewares wholesalers who stocked up on these items in anticipation of shortages this summer stand to lose considerable sums if ceiling prices are lowered and they are not given any price protection from the manufacturer or relief from the government.

Among the housewares manufacturers who have issued price protection policies recently are Cory Corp., General Mills, Hamilton Mfg. Co., Hamilton Beach Co., Corning Glass Works, and John Oster Mfg. Co.

To make the job of classifying the forms submitted by manufacturers easier, OPS has issued a series of code numbers that are to be attached to the forms. The code numbers are in six digits. The first two stand for the OPS price branch concerned with the category or product line and the next four represent the industry class in the Standard Industrial Classification now used.

Under this system, refrigerators, refrigeration machinery, and complete air conditioning units bear the code number 72-3585 and electrical appliances carry the code number 72-3621.

In reference to CPR 7, the margin control order for retailers, the OPS answered some questions directed to it from the field. Here are a few of the exchanges:

Q. How are sales from samples priced under CPR 7?

A. Where the retailer carries no stock on hand but sells from samples, he does not prepare a chart nor price under CPR 7. CPR 7 covers only merchandise in stock open, unpacked, and available for sale on the list date. Sales from samples are covered by the GCPR (General Ceiling Price Regulation).

Q. How can a retailer abide by his fair trade contract if he is forced to sell the item below the fair trade contract price?

A. The retailer is not required by CPR 7 to sell at any price; he is prohibited from selling above his ceiling price. The solution lies in the manufacturer's obtaining an order under section 43 of CPR 7 if he is eligible.

Q. Where a store on the list date was sold out of an item normally carried in stock, may it use the net cost and offering price during the base period of GCPR for pricing chart purposes?

A. No. The only items which may be listed are those offered for sale which were open, unpacked, and available for sale on the list date.

Amendment Can Set Wholesale Prices of Small Electric Appliances

WASHINGTON, D. C. — Ceilings can be clamped on the wholesale prices as well as on the retail prices of small electrical appliances under the terms of a recently issued amendment to Ceiling Price Regulation 7.

Amendment 4 to CPR 7 permits the director of the Office of Price Stabilization, when he fixes uniform retail prices on branded articles covered by the regulation, to also fix uniform prices at the wholesale level. He can establish such uniform prices by special order upon request from the manufacturer.

The amendment points out that some manufacturers normally set wholesale prices on their branded lines at the same time as they set retail prices. The continuation of this practice, according to the amendment, "appears to be desirable and necessary for efficient pricing of branded lines."

Amendment 4 also gives retailers of small electrical appliances an extra 30 days—to May 30—to file their pricing charts. It also extends to them the same measure of relief from increased costs not reflected in their retail prices as was available to retailers originally covered by this regulation.

CPR 7 is a margin-type control, which fixes the percentage markup a dealer can take rather than actually establishing dollar-and-cents ceilings.

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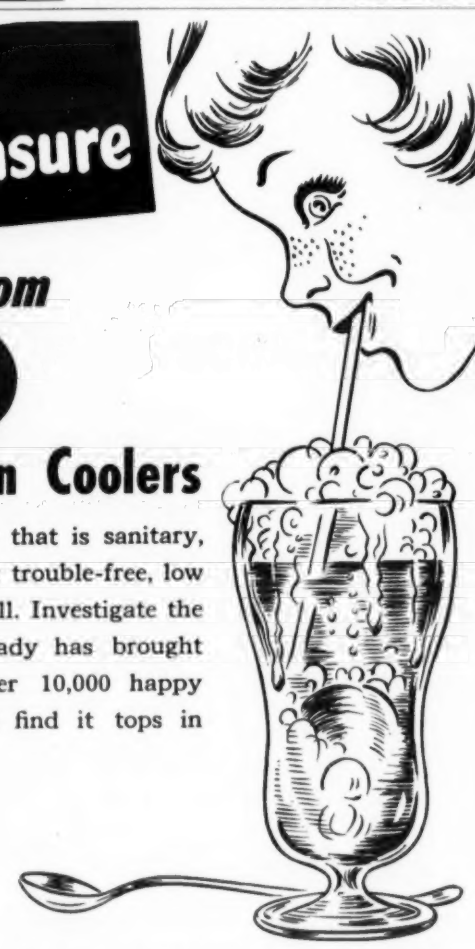

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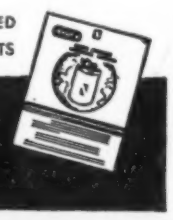
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